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U. OGDEN, M.D.,	- - - -	EDITOR.
R. ZIMMERMAN, M.D.,	L.R.C.P., London, -	CORRESPONDING EDITOR.

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CONTRIBUTORS TO VOLUME V.



T. W. POOLE, M.D., LINDSAY.

T. W. MILLS, M.D., HAMILTON.

C. K. CLARKE, M.D., TORONTO.

J. E. GRAHAM, M.D., “

G. W. EMERY, M.D., MINNEAPOLIS, U.S.

T. J. W. BURGESS, M.B., LONDON.

W. CANNIFF, M.D., TORONTO.

H. T. MACHELL, M.B., TORONTO.

H. WATT, M.D., MEAFORD.

W. J. WILSON, M.B., STOUFFVILLE.

W. T. AIKINS, M.D., TORONTO.

J. D. MACDONALD, HAMILTON.

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171 Church Street Toronto, Corresponding Editor

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Selections: Medicine.

RENAL INADEQUACY.

Dr. Andrew Clark, at a meeting of the London Medical Society, read a paper "On Renal Inadequacy." He began by remarking that he was often painfully struck by the great number of people suffering from ill-health of which no sufficient explanation could be given. There was, he said, no doubt that the progress of knowledge was steadily lessening this ignorance, and explaining, by the discovery of dynamical or statical conditions hitherto overlooked, cases supposed to have their origin in the distant ancestry of the patient, and believed to be practically inexplicable. Some of these cases, he believed, took their rise in a feeble and disorderly nervous system, some in a vicious digestion, some in an imperfectly acting skin, some in unsuitable conditions of life and work, some in abuse of tea, coffee, tobacco, alcohol, and other narcotics, and some in the derangement of the chemical changes which accompany and determine assimilation and disassimilation. There remained, he thought, numbers sufficient to demand and reward inquiry. Many of these cases of ill-health found their explanation in deficient excretion. As examples of this, he mentioned cases of anæmia and chlorosis due to fæcal poisoning, and curable by purgatives. But a far larger number, he believed, were due to a deficient excretion of urinary solids. "By renal inadequacy I mean that state of kidney in which it is unable, without material diminution of quantity, to produce a urine containing the average amount of solids and of a specific gravity greater than 1014." The

deficiency of solids chiefly affects the urea and uric acid. The urine was pale, almost invariably free from albumen, and deposited no casts. He did not profess to determine what was the exact pathological state of the kidney; but he conjectured that it was one of slight withering and induration, just as sometimes the skin is found withered, hard, and incapable of producing a true unctuous sweat. This renal inadequacy had, so far as he could see, no characteristic symptoms, and we found it out only by searching for a cause which should be found adequate to the explanation of the patient's trouble. The symptoms and signs most commonly associated with renal inadequacy were flatulent dyspepsia; palpitation, with a very feeble and interrupted capillary circulation; a dry, shiny, waxy skin; numbness, tingling, cramps and pains in the limbs, occasional flushes, worry of brain, and general nervousness; sometimes thickening of the terminal joints of the fingers, and sometimes, but rarely, evidences of gout. One knew in a given case that these symptoms were due to renal inadequacy, not merely because there was a grave deficiency in the excretion of urinary solids, but because whatever diminished that secretion, or whatever added to the amount of solids to be excreted, invariably within a short time aggravated the patient's sufferings. Three things were of great importance in these subjects. They are exceedingly vulnerable; they repair very slowly the damage done by accident or disease; they bear very badly the shock, however slight, of surgical operations—a fact mentioned by Sir James Paget (Clin. Lectures, p. 44). As to prognosis, this state seemed capable of indefi-

nite prolongation without serious secondary injury to the organism. Under unfavourable circumstances and bad management death might occur from some local inflammation, from cerebral or other hæmorrhage, or from the so-called pyæmic fever springing unexpectedly out of some, perhaps trifling, surgical operation. He then enumerated what he considered the special characters and appearance of patients who had been the subject of renal inadequacy for over four or five years:—"They have at least a marked and striking physiognomy; they increase in flesh; they become puffy without being distinctly œdematous; the skin becomes drier, more shiny, and yellower; the features swollen almost to distension; the pupils are dilated; the lips and cheeks of a bluish red; the articulation deliberate and somewhat difficult, and the whole intellectual tone and manner subdued and slow." From one side the physiognomy was like that of pernicious anæmia, from another like of chronic Bright's disease, and yet it seemed distinct from both. As to treatment, much might be done by good management, by which he meant the adjusting of the quantity and quality of the food to the diminished excrementitious activity, the withholding of such agents as directly lessen the secretory power of the kidney, aiding the kidney in its work by making the supplementary excretory organs fulfil that part of the work which the kidney was unable to do, and generally by placing the patient in those conditions which would give the organism the greatest power for resisting the inroads of disorder, and for making sufficient compensation when complete repair was unattainable. The tepid bath, followed by vigorous friction, the use of warm clothing, and the avoidance of passing exposure to cold and damp, with gentle exercise daily in the open air, were indicated. The diet should be light; stimulants should be avoided except to the extent of one glass of claret or other light wine, twice a day. The medicines he had found most useful were small doses of arsenic with reduced iron at meals, and an occasional mercurial alterative. If digestion was disturbed, he discontinued the iron and arsenic, giving the patient bitters with alkalies between

meals, and a mercurial alterative every third night for two or three times. He concluded by narrating a case which he first saw some years ago. By a strict adherence to a limited dietary, and by the use of purgatives and diaphoretics this patient improved so much as to consider himself quite well; whereas, when he was taking food and wine every two hours, it seemed that the more he took the worse he became. A very remarkable fact about this case was that as his supplies of food and wine were reduced, the patient's urine steadily rose in density from 1003 up to a very fair standard; and in three weeks he left town declaring himself quite well. When seen six months ago this patient seemed and declared himself to be quite well, his only complaint being that he could not relax his dietary without being ill.—Dr. C. T. Williams said these cases were generally treated as dyspeptics. He asked whether weight was gained or lost under the restricted diet, whether there was corpuscular deficiency or excess in the blood, or any signs of anæmia.—Dr. Gilbert Smith asked whether it was due to renal defect or blood change. Did the kidneys refuse the blood, or did the blood refuse to go to the kidneys? Had these organs been examined after death?—Dr. Routh said there was no proof that the author's dictum was correct, and inclined to believe the ailment due to defective assimilation, and therefore lessened amount of salts in blood and urine, rather than to renal inadequacy.—Dr. Dowse had seen several cases similar to those described by Dr. Clark, but had never examined the kidneys after death. He did not for a moment doubt the existence of such a condition as renal inadequacy.—Dr. Symes Thompson agreed that the kidneys must be at fault in these cases. He had not known that a diminished diet could increase the specific gravity of urine.—Dr. Ewart wished that we could detect the condition of renal inadequacy before the cases had gone so far as that only a rigid diet would keep them in health.—Dr. Andrew Clark replied, urging the facts that proved the existence of such a state as renal inadequacy; that retention of excreta leads to disease, and that in a case he had at the London Hospital nitrogenous diet

increased the defective action of the kidneys. Some of the patients gained weight, others lost flesh on the strict *regime*. The blood did not appear abnormal. Apparently normal skin sometimes refused to perspire normally. Why should not a kidney which refused to act yet show no apparent change?—*Lancet*.

DIABETIC COMA—ACETONÆMIA.

BY BALTHAZER FOSTER, M.D., F.R.C.P.

Dr. Balthazer Foster, Professor of Medicine in Queen's College, Birmingham, regards acetone as the cause of the dyspnoea and coma, which sometimes occur in saccharine diabetes. He puts his views before the profession in an article in the *British Medical Journal*, Jan. 19, 1878. His statement of the phenomena presents nothing specially noteworthy. In a boy, two days after entering the hospital, there were restlessness, anxious countenance, slight blueness. Inspiration was deep, ample, chest filling. He respired thirty-two times a minute, but the large quantities of air passing into and out of the lungs, seemed to have no effect in satisfying his craving for it. The chest was everywhere resonant; the respiration harsh and loud. His breath presented the ordinary diabetic odor. Pulse small, weak, 136; temperature, 97. He was mentally dull, but when roused answered correctly. These symptoms commenced with vomiting, which had been repeated with sharp epigastric pain and rapid respiration. Before death he became comatose and cyanotic, with rapid breathing. On *postmortem* the blood was found pale and cream-like, resembling grumous pus. On exposure to the air it became pinker and brighter in colour, assuming a magenta-like tinge. It contained a small quantity of sugar; and, microscopically, the creamy condition appeared due to a large quantity of molecular matter, resembling fat, but which did not dissolve in ether. While reflecting on these appearances of the blood, Dr. F. came on a reference to the views of Petters and Kaulich, with regard to the development of acetone in that fluid, and he determined to test the effects of this substance on healthy blood.

With the ready assistance of Dr. Sandby, it was ascertained that when acetone was added to the blood it became paler and creamy-looking; and, on exposure to the air, after a time, presented the usual pinkish colouration of diabetic blood. Under the microscope the blood corpuscles were seen to break down into granular *debris*, reproducing exactly the state observed in the blood of the patient. Roughly examined it appeared to contain a good deal of fat—but in neither the case of the boy, nor in blood to which acetone had been added, was this appearance due to the presence of fatty matter. These appearances were not produced by adding to fresh blood chloroform, ether or alcohol. The case, consequently, was explained by these results. Assuming that acetone was developed in the boy's system, its destructive effects on the blood would be amply sufficient to account for the great dyspnoea and cyanosis, notwithstanding the full and frequent inflation of the lungs; for the blood cells were so destroyed that they no longer were able to fix and absorb the oxygen drawn into the lungs by the vigorous respiratory efforts.

Dr. Foster next proceeds to sketch some of the observations made on this subject. From these it appears that acetone is developed in the system of diabetics—this was not peculiar to diabetes, but was met with in chronic affections of the stomach, and accounted for the depression of the whole nervous system met with in such cases. The source of acetone was assumed to be alcoholic and acetic fermentations of the grape sugar in the stomach. It was believed that inasmuch as acetone was found after death in the blood, it might be formed in that fluid, as well as in solid organs. The urine of confirmed diabetics contains it.

Finally, Kussmaul, in his experiments on animals, found acetone to be an anesthetic less powerful than ether or chloroform, and in its effects more resembling alcohol. It produces great muscular weakness, quick pulse; deep, slow breathing; and in large quantities brings on stupefaction. In man, before the coma comes on, there is partial unconsciousness, broken by a happy delirium, in which the patient laughs and jokes when roused, remind-

ing one very much of the effects of alcohol. Dr. Foster summarizes his results thus:

"1. That acetone has been found in the breath, blood, urine, &c., of patients who have died of diabetic coma.

"2. That grape sugar may be converted in the stomach by alcoholic and acetic fermentation into acetone.

"3. That the changes in the blood observed after death from diabetic coma can be artificially produced by the artificial addition of acetone.

"4. That the administration of acetone in large quantities to animals produces similar symptoms to those observed in diabetic coma."

The history of a case terminating fatally is given, and Dr. Foster asks the question, Must the ending of diabetic dyspnoea and coma always be by death? He answers that he thinks not. He further expresses the belief that many cases do reach a favourable termination. Many of the milder cases pass unnoticed, and in many instances the slighter effects of acetone are put down to temporary brain disturbance. In other instances the symptoms, though less grave than in the more severe cases recorded, are yet sufficiently dangerous to cause much anxiety, and are really due to acetone; but the process is arrested, either naturally or by treatment, and life is saved.

Dr. Foster proposes to treat thoracic symptoms and coma in the diabetic with such remedies as have been found serviceable in the particular case (opium was continued in the one referred to) and carbolic acid—the former, it was hoped, would continue to lessen the quantity of diabetic sugar formed, and it was hoped the carbolic acid would prevent the conversion of the sugar into acetone. Two grains of this acid were given in a drink every hour at first, and subsequently every two hours.

Dr. G. E. Rindfleisch has calculated the rapidity of the reparation of the blood after the menstrual loss, and finds it to be at the rate of 175 millions of red globules per minute!

THE PRESENT STATE OF THERAPEUTICS.

* * * * *

No fact is more evident than that the highest order of physicians and surgeons are not men remarkable for their knowledge of microscopy, of experimental physiology, and the other branches of theoretical medical science, and, conversely, that the microscopists and pure physiologists are not remarkable as physicians, and, indeed, cannot be. The attempt to pervert the proper purpose of medical schools, and to give a merely science aspect to medical teaching is a fashion of the time, which, if it gain more adherents, is likely to do serious mischief to the cause of medical education. For young men, allured by the glitter of scientific work, will neglect the important and really more difficult attainments of true professional studies.

No wonder that, at a recent meeting (last month) of the Paris Academy of Medicine, there were loud demands for reform. No wonder that Dr. Andrew Clark, in that recent iconoclastic address from which I have just quoted, cries out that therapeutics, "the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition." He attributes this unhappy state of things to several causes; but the first is, that *materia medica*, not therapeutics, is taught in the schools, and that there is "no physician of experience and authority who teaches the subject of therapeutics."

Where must the reformation begin? Obviously the reformation is demanded in the direction which I have indicated, and which Dr. Clark so vehemently emphasizes.

We must begin by stripping the *materia medica* of its useless knowledge. We must relegate to the botanist, to the chemist, to the pharmacist, the subject matters belonging to them, and retain those things having connection with the study and work of the physician. I can best illustrate this by an example selected from the vegetable kingdom: let it be *nuxvomica*. We have first the names—botanical and chemical. Then follows the source and botanical description, which is Sanscrit to the

average student, and knowledge without any use to the practitioner as such. Next comes the pharmaceutical preparations, and a description of the mode of preparing the tincture and the extracts, and an elaborate account of the separation of the alkaloids—a complexus of chemical and pharmaceutical knowledge of great utility, indispensable, indeed, to the pharmacist, but useless to the physician, who is not engaged in the business of a manufacturing chemist, and who cannot acquire this knowledge unless at the expense of his proper professional education. The best students who make the attempt to master the details of *materia medica*, acquire but a vague notion of it, and drop the study as soon as possible, except the few who expect to combine the business of pharmacy with the practice of medicine—a union which always results unhappily, and is not to be approved.

Dr. Clark complains in his energetic way that our works in this department consist of *materia medica* teaching largely, whereas they ought to be devoted to therapeutics only. This is an extreme view to which I must decidedly express my dissent. There is certain knowledge of pharmacy and chemistry which is necessary to accurate prescribing, and which must be taught if we would use our therapeutical knowledge intelligently. We must know the names of the drug, the forms and preparations in which they are compounded, the active constituents, the doses, the antidotes chemical and physiological, but especially must we have full and accurate information in regard to the effects of the remedies and their uses in the treatment of diseases. All of this knowledge is immediately applicable to the requirements of the physician, and no part of it can be omitted without injury. I hold that the actions and uses of remedies is the point on which the greatest stress should be laid, and no information, empirical or physiological, should be neglected. Let the student have the minutest information from all possible sources of the physiological powers and capabilities of a drug, its behaviour as influenced by idiosyncrasy and dose, its applications in the treatment of disease, the fallacies which affect a proper estimate of its powers, the special conditions in

which it is useful, why it should be preferred to another remedy of the same class, and in fact any information in regard to it which may facilitate the physician's use of his armamentarium. The artisan is taught the name of the tool, the range of its uses, the mode of handling it under special circumstances; but he is not expected to acquire the mineralogy of iron and the chemistry of steel—subjects concerned with its original construction.—*Dr. Bartholow's opening address at Jefferson Medical College.*

THE ACTION AND USES OF HYOSCYAMINE.

BY ENGLEDDUE PRIDEAUX, L.R.C.P. LOND., &C.

* * * * *

IN conclusion, as a summary of the results of the use of hyoscyamine in a considerable number of cases in this hospital, and from the cases reported by others, in regard to its advantages and disadvantages in the treatment of the various diseases of insanity, it appears—

1. That in most cases of mania, or where there exists great excitement of an aggressive and destructive character or rapidity of movement and speech, the use of the drug is the most effectual and rapid means of exercising that form of restraint which has been termed "chemical restraint."
2. That in cases of acute mania it will produce sleep and quietude when all other drugs have failed, and is one of the most rapid and reliable narcotics we possess.
3. That in the treatment of the epileptic status in epileptic mania it diminishes the number, frequency, and severity of the attacks, especially if its administration be extended over some time.
4. That in delusional insanity, especially the mania of suspicion and other forms of mania where the delusions are varying and changeable, it has a decided action in producing such an altered condition of the cerebral status that a condition which has been termed "physiological mania" results, and this so eclipses the former delusions and hallucinations that they are forgotten and the mind becomes clear; while, if the subjection to the influence of the

drug be continued, it ultimately leads, under favorable circumstances, to a permanent condition of quiescence and restoration to a healthy state of mind.

5. That in chronic dementia, associated with destructive tendencies, bad habits, and sleeplessness, the condition of the patient much improves after a continued course of small doses of the drug.

The disadvantages that have occurred in its use, and which have to be guarded against, are:—The dryness of the tongue and pharynx that occurs, especially after a prolonged administration. This has been thought to contraindicate its use in cases of artificial feeding, but provided the tube be dipped into an oily liquid before passing I have not found it any inconvenience. The attacks of vomiting that have occurred in some cases, after an administration of some weeks, necessarily lead to a discontinuance of the drug. Vomiting occasionally occurs after one dose, even a small one, and in two cases, mentioned by Dr. Lawson, hæmatemesis took place. Where rapid and sudden action of the drug is feared in feeble cases, it is better to administer it with the food.—*Lancet*.

SIMPLE DILATATION OF THE STOMACH AND ITS TREATMENT.

BY T. CLIFFORD ALLBUTT, M.D., AND E. H. JACOB, M.B., LEEDS.

Dr. Clifford Allbutt urged that simple dilatation of the stomach apart from pyloric obstruction is not rare, and yet is not generally recognised by the profession in England. His attention was drawn first to the subject by Kussmaul, in a paper published in 1869, and since that time he had had frequent opportunities of verifying the truth of Kussmaul's statements. Niemeyer, Leube, and others had published similar statements at subsequent dates. Among its chief causes, he referred to gluttonous eating, or the use of much slop or of aerated drinks acting upon the healthy stomach, and to the effects of ordinary ingesta upon the stomach weakened by anæmia or such debilitating diseases as phthisis, acute rheumatism, and the like. Deficiency of peptic secretion in the stomach, if neglected, may

lead to the same result. Cases of ulcer or catarrh of the stomach do not readily lead to dilatation, owing to the intolerance of accumulating contents and to the early and frequent vomiting thus induced. The symptoms and physical signs of dilatation of the stomach were detailed somewhat fully. The absence of pyloric obstruction in many cases must be taken upon an inference drawn from all the circumstances, an inference not always a very certain one. Prognosis depends greatly upon such an inference, but treatment is not much affected by it. Treatment by regimen and certain drugs was touched upon; but the author said that, as in dilatation of the bladder, the direct method was to be found in systematic catheterism. This method he had found difficult in private practice, but more easy in the hospital, and in this part of his subject he was greatly indebted to Dr. Jacob's aid. Dr. Jacob had treated several cases for him and his colleagues by means of the stomach-syphon, and these cases were reported and commented upon by Dr. Jacob. The instrument used, and the mode of its application, were described.

TREATMENT OF HEPATIC CALCULI.—Some very positive statements on this subject are made by Dr. T. H. Buckler, in the *Boston Medical and Surgical Journal*. Referring to Dr. T. G. Thomas's enumeration of the operation of cutting into the gall-bladder as one of the recent surgical triumphs, he asserts that such a procedure is unwarrantable. Cholesteric gall-stones can always be dissolved away by large doses of chloroform, especially if combined with succinate of iron. The latter agent also may alone accomplish the desired solution and effect a cure. In Dr. Buckler's last three cases, treated successfully, he gave ten drops of chloroform every four hours, and a teaspoonful of Stewart's hydrated succinate of the peroxide of iron half an hour after each meal. He has sometimes given a teaspoonful of chloroform every six hours without causing any bad symptoms to the patients, and with the result of a cure within a week. The succinate of iron contains, according to Dr. Buckler, more nascent, appropriable oxygen than any other known therapeutic agent, and is one of the

best of the ferruginous preparations apart from its solvent power on the gall-stones. It is better than nitric acids in affections of the liver. Chloroform, we are told, on being swallowed passes to the acini of the liver, then with the bile to the gall-bladder, where it dissolves the gall-stones with the inexorable certainty of mathematics. Dr. Buckler's experience with ether and with the various mineral waters has led him to consider them of no value in this trouble.—*N. Y. Medical Journal*.

THE BENZOATE OF SODA CURE OF CONSUMPTION.—In the *Wiener Medicinische Wochenschrift* (No. 39, 1879), it is stated that the newly-discovered miracle cure (*Wundermittel*) of tuberculosis has created intense interest in medical circles, and inhalations of benzoate of soda are now going on in every room of the hospital. Prof. Rokitansky, jun., is credited with the discovery. Dr. Max Schüller has made many successful experiments on animals with artificially produced tubercular inflammation of joints, and Rokitansky claims to have been equally successful in the cure of tubercle in man. Dr. Krockzak uses one part of benzoate of soda in a five per cent. solution twice daily, to the thousand of body weight, by means of a good atomizer, for seven weeks without interruption. Druggists can hardly supply the demand for benzoate of soda.

Gustave Vogel, on the changes of the pupil during the anæsthesia of chloroform, draws the following conclusions from his researches :

(1.) The pupil is at first dilated then contracted ; when this contraction is well marked and rapid, anæsthesia is on the point of ceasing. In other cases the contraction only happens at this moment. A dilatation, when the anæsthesia is profound, indicates threatened apnoea.

(2.) The globe of the eye is deviated in such a manner that the pupil looks upward : at times the cornea corresponds constantly with the middle of the palpebral slit ; towards the end of the anæsthesia the globe presents a certain number of irregular movements.

In exhausted individuals, the pupil gives no other signs than the dilatation premonitory of apnoea.—*Gaz des Hôp.*

Surgery.

TRAUMATIC DISLOCATION OF THE FIFTH CERVICAL VERTEBRA.

BY WM. J. MORTON, M.D., NEW YORK.

The following case came under my care as clinical assistant at Professor Hammond's clinic for Diseases of the Mind and Nervous System, and offers some points of general interest.

The patient, Tommy Baedor, a bright boy, twelve years old, was referred to the clinic on account of general paralysis of his arms and legs, and apparent contractions of the muscles of the left side of the neck. He gave the following account of himself : One week ago he was running very fast, chased by another boy, who, as he caught up with him, pushed him violently. He fell and struck the right side of his neck against the horizontal iron rod of a fence or railing. The shock was severe, and he could not speak for several minutes. He was helped up and home. His neck felt very sore and was "twisted" to one side. His aunt applied liniments, without, however, producing any relief. Upon trying to drink he found that he had a "lump" in his throat which hurt him very much when he swallowed, and he was obliged on this account to eat only soup and soft food. Moreover, he could not open his mouth wide. He tried to get a peach stone between his teeth, using it as a wedge to force the jaws apart, but could not get it fairly in. He was obliged to sleep on his right side. The next day he felt very weak, could not swallow without much pain, couldn't walk, nor get his mouth wide open. His aunt states that "his hands felt in a burning fever," while his body felt cool. During the remaining five days he was unable to use his arms and hands ; they were "paralyzed, and had no feeling in them,"—so much so, that, he says, he could not use them to pull his trousers on. He also felt very sleepy. He made many ineffectual attempts to get his neck straight. Finally, his aunt, who is a very dull sort of person, thought it time to have his case examined, and accordingly brought him to the clinic.

Present appearance.—As the boy entered, the first thought was of an extreme contraction of

the muscles of the left side; the head was pulled strongly over to the left and backward, while the chin pointed out to the right; so marked was this position that the head seemed to lie over upon the left shoulder—the left shoulder at the same time was elevated and held up toward the ear. The rigid appearance of his whole body was peculiar; he seemed to walk as though in fear that his head would topple off; when he turned, the rotation took place at the hips and not at the neck, or he rolled his eyes without moving the head. His arms also swung a little stiff and helplessly, and were flexed at the wrists. The rigidity of the shoulder and neck region was very marked. When asked what he complained of, he stated that he could not use his arms; that he had no feeling in them; that he couldn't walk well, and that it hurt him to swallow even fluids. Examination corroborated his statement in regard to paralysis and cutaneous anæsthesia, as well also as his inability to swallow water without evidences of pain. It caused pain also to produce forcible extension of the flexed wrists. Told to put out his tongue, he could not open his mouth more than half an inch, but the tongue came out straight. It was coated white on the right side, clean and red on the left. There was no discoverable paralysis of the muscles of the face or eyes. As regards the position of his head, the occiput seemed to sink downward and backward, and give to the chin an upward projection; the chin, as mentioned, projected over the median line to the right side. Between the base of the occiput and the seventh vertebra the outline of the spinal column seemed to hollow in, and the spinous processes to be secure. It was difficult to feel the spine of the fifth, and pressure over it gave pain on both sides, but particularly on the right. The head could be bent over to the left side moderately well, but could not be laid over on to the right shoulder in the slightest degree. In this direction it was perfectly immovable.

There was no evidence of a permanent contracture as in torticollis, nor of paralysis of the muscles of the right side. There was no erepitis at the seat of injury, and the fact that the deformity could not be in the least degree

modified by lateral rotation seemed to justify the exclusion of a diagnosis of fracture, at least of an oblique process.

A diagnosis of dislocation of the inferior oblique process of the fifth cervical vertebra was made, and an attempt at reduction determined upon. I may say that Dr. Osborne, who by chance was present, concurred in this diagnosis.

Moderate extension was first tried, but to no purpose. Finally, taking the boy by the head and under each mastoid process, I lifted him gradually entirely clear off the floor and held him suspended, an assistant at the same time supporting my elbows. His body, with the right shoulder as a guide, was then rotated by Dr. Osborne, first very gently backward, *i. e.*, to the right (as the hands of a watch indicate), in order to disengage the oblique process, then more firmly forward, *i. e.*, to the left; the jar of the bone returning to its place was immediately felt both by Dr. Osborne and myself, though much modified, of course, by the weight of the patient's suspended body. The patient was immediately lowered so as to stand on his feet, and to our pleasure the head was quite straight, though still a very little bent over laterally to the left side, a condition due probably to its having been so long already in that position. But it was particularly noticed that the chin pointed straight again. The boy expressed his relief and satisfaction, and rotated his head freely to demonstrate that it was now in its right position. Given a glass of water he drank it off freely—a thing he had not been able to do for a week when sent home. At the end of two hours the head was quite straight. Sensation had not, however, returned to his arms and hands. He had at times a thrilling feeling in them, as if his "crazy bone" was being hit. Patient walked home.

Friday, July 25th.—When patient woke up he found he was unable to move except very gradually. For instance, he woke with his hands crossed and had to get his aunt to separate them. His feet were much swollen, as also his hands and wrists. He could barely hobble along, walking on the outer edge of his feet. His hands felt numb all day; he could not close his fingers nor hold any object in his hands; could move his thumbs best. Both

hands were alike. He was so helpless that he had to be put to bed; had no trouble of urination, but was constipated.

Saturday, July 26.—Felt much better; could use his arms and legs pretty well. The dorsum of the hands was much swollen; pulse, 84. A painful spot, like an enlarged gland, is felt in each groin. Bends head freely forward but not backward. Bends it well to his left side; but not to his right. Right cheek swollen; right side of tongue coated white—left, red; painful enlarged gland under right jaw; pupils normal. Spines of cervical vertebræ in line.

July 27th, Sunday.—Swelling has left his hands; movements improved; still holds his head very slightly crooked. Pulse, 65.

Monday, July 28th.—Head quite straight. Swelling of hands has disappeared, and sensation and motion have thoroughly returned to them. Still places the finger over the fifth cervical vertebra to indicate the region of a remaining sore spot in the neck. Pulse, 84.

Tuesday, July 29th.—Slept without pain in the neck for the first time since injury. Head carried perfectly straight. Patient apparently in all respects completely recovered.

September 29th.—Patient, up to this date, has remained as well as if no accident had ever happened.—*N. Y. Med. Record.*

A NEW METHOD FOR ARRESTING HÆMORRHAGE WHEN AMPUTATING AT THE SHOULDER-JOINT.—In cases of amputation at the shoulder-joint that have come under my observation, I have noticed the chief difficulty of the operation to consist in controlling the hæmorrhage attending it, necessitating the aid of a quick and competent assistant. I have twice, in performing this operation, adopted a method which renders it almost a bloodless one. I lay a piece of calico bandage across the chest and upper part of the shoulder, and then fix an india-rubber cord or tourniquet round the shoulder over the bandage; this effectually compresses the axillary artery. In order to prevent the india-rubber cord from slipping, an assistant takes both ends of the bandage and holds them across the chest. If called upon to repeat the operation, I would pass a calico bandage under the india-rubber cord, behind as well as in front of the shoulder, then tie the four ends together, and thus dispense with the help of an assistant.—EDWIN MOORE, M.D., in *London Lancet*.

ACUTE INTESTINAL OBSTRUCTION.

BY W. H. A. JACOBSON, M.B., F.R.C.S.

* * * * *

In conclusion, I venture to suggest to you the following points in the treatment of a case of acute intestinal obstruction.

1. From the very first, it is not enough to refrain from giving solid food. The patient is to be fed by enemata, given *per rectum*, and consisting of milk and egg, wine or brandy, and given carefully twice or three times daily. If possible, only ice out of milk is to be sucked by the mouth.

2. If possible, no opium is to be given, as this drug has a dangerous tendency to mask symptoms; instead of opium, belladonna is to be given, and to be pushed in large doses. Many of those present may remember a paper in the *British Medical Journal* (August 31st, 1878), by Dr. Norman Kerr, on "Large Doses of Belladonna in Intestinal Obstruction." Five cases are given, somewhat briefly, and therefore incompletely recorded; all got well under the use of belladonna, though in three acute cases, two grains were given every hour, and sixteen, twelve, and fourteen grains were administered in these cases. I do not pretend to explain the benefit of this drug. I admit that its action would seem somewhat contradictory in the one case, as when rubbed into the perineum for spasmodic stricture, appearing to remove spasm; in another, to set up contraction of involuntary muscular fibre. But in a case like the one which I bring before your notice to-night, where a coil has, perhaps by irregular action, slipped under one or more bands, I can imagine that belladonna, if given early and in large doses, may enable the bowel, if this remain empty, by its own contraction to set itself free once more. But on this point I should be grateful for any information.

3. At an early date, the method of abdominal taxis should be made use of. Mr. Hutchinson, in bringing this method forward, recommends that it should be carried out as follows. Under chloroform, a very copious enema of water is to be given by a long tube, and, the anus being kept closed round the tube with a cloth, the fluid should be forced in to the utmost point of

distension. Then, simultaneously with the withdrawal of the tube and the escape of the water, the surgeon, with the flat of one hand on each side of the abdomen, should press gently but firmly on alternate sides, in such a way as to facilitate the movements of the coils upon each other. As much of this having been done as shall seem advisable, and the water having flowed out, let the patient (by means of a girth fastened to the bedposts) be raised by the feet till the trunk is inverted; and, whilst the patient is in this position, let the surgeon, with both his hands placed on the lowest part of the abdomen, press the whole mass of the intestines as high up as possible in the abdomen. Of course, during the whole of the time an assistant should carefully watch the effects of the chloroform on the pulse and breathing.

I have only one small alteration to suggest in the above details; and that is, knowing the difficulty of inverting a heavy patient, I think that it will be found better to overturn a chair, so that its sloping back be against the bed; over the chair-back let some clothes be laid, and the patient's body be gradually inverted over this by assistants standing on the bed. This will not only be found easier in the case of a heavy patient, but in that of a female one more decent in the eyes of any friends who may be present.

The above methods failing, I have only to urge an early operation, performed under the conditions already mentioned. It may be said, in answer to this, that recovery may and does ensue sufficiently often to make it worth while to wait. From the cases that I have seen, my own opinion would have been distinctly to the contrary—that, apart from those chronic or subacute instances where a case does well by an intussusception slipping back again or sloughing off; where a long-impacted scybalus or gall-stone passes on, or where a stricture is set free by partial ulceration of itself—that, putting aside such cases as these, acute intestinal obstructions, which have not yielded to such preliminary treatment as that sketched above, will end but in one way if left to themselves. No doubt the justifiability of these operations depends on the probability of a successful result; but hitherto, in nearly every case, the operation has been performed too late to guarantee any

such success. For my own part, considering what has been attempted and what has been done in antiseptic surgery, and believing that great advances have yet to be made in the surgery of the abdomen, I trust that I do not assume too much when I say that, in a few years, we shall be able, in cases similar to that brought before you to-night, to promise a successful result with something like certainty—*British Medical Journal*.

MANAGEMENT OF PATIENTS WITH PROSTATIC ENLARGEMENT.

BY REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

Patients long before reaching the confines of threescore years and ten, some by anticipation, others by a realisation, of the earlier symptoms of prostatic enlargement, not unfrequently ask advice as to how they may keep in abeyance the graver symptoms and complications of this affection. In advising such persons, I have for some years been in the habit of laying stress upon the following points:—

1st. To avoid being placed in circumstances where the bladder cannot be emptied at will.

2nd. To avoid checking perspiration by exposure to cold, and thus throwing additional work on the kidneys. In climates such as our own, elderly persons should, both in summer and winter, wear flannel next to the skin.

3rd. To be sparing of wines, or of spirits exercising a marked diuretic effect, either by their quantity or their quality. Select those which promote digestion without palpably affecting the urinary organs. A glass of hot gin-and-water, or a potent dose of sweet spirits of nitre, will not do anything to remove the residual urine behind an enlarged prostate.

4th. To be tolerably constant in the quantity of fluids daily consumed. As we grow older our urinary organs become less capable of adapting themselves to extreme variations in exertion. Therefore it is desirable to keep to that average daily consumption of fluids which experience shows to be sufficient and necessary. How often has some festive occasion, where the average quantity of fluid daily consumed has been largely exceeded, led to the over-distension

of a bladder long hovering between competency and incompetency. The retention thus occasioned, by suspending the power of the bladder, has often been the first direct step in establishing a permanent, if not a fatal, condition of atony or paralysis of this organ.

5th. It is important that from time to time the reaction of the urine should be noted. When it becomes permanently alkaline in reaction, or is offensive to the smell, both necessity and comfort indicate the regular use of the catheter. If practicable, the patient may be instructed in the use of the instrument.

6th. Some regularity as to the time of performing micturition should be inculcated. We recognize the importance of this in securing a regular and healthy action of the bowels, and though the conditions are not precisely analogous, yet a corresponding advantage will be derived from carrying out the same principle in regard to micturition.

The sum of these instructions is, that inasmuch as we cannot arrest the degenerative changes by which the prostate becomes an obstacle to micturition, it becomes of the first importance that every means should be taken to compensate for this by promoting the muscularity of the bladder and preventing it becoming atrophied or paralysed either by accident or improper usage.

When, in connection with hypertrophy of the prostate, the bladder ceases to expel its contents, I would lay stress on the importance of attempting, without loss of time, by mechanical and other agencies, to restore its power. To do this and to bring about a healthy condition of the urine, which is about the best stimulant that can be applied to a weakened bladder, I introduce and retain a gum-elastic catheter. To this is attached a piece of rubber tubing, through which the urine escapes as it is excreted, and is collected in a receptacle placed by the side of the bed. Thus urine is not allowed to be retained for a moment. Much depends on *how* all this is done whether it proves a source of comfort or not to the patient. If it is done properly—that is to say, if the utmost cleanliness in every detail is employed, changing the catheter twice a day (thoroughly disinfecting the catheter used with carbolic lotion), and

adding to this, if necessary, a daily ablution of the bladder and urethra with some unirritating disinfectant, great relief will be experienced. Under such management I have frequently noted that the reaction of the urine, which may for some time have been alkaline, becomes acid. This alone indicates that there is now no stagnation. When the urine becomes healthy in character, I substitute for the retention of the catheter its introduction at regular intervals, allowing the patient to get up and go about.

Of the medicines that I have found most useful in restoring, in conjunction with mechanical means, the tone of the bladder, I would mention the ergot of rye, which I generally give in doses of twenty to thirty minims of the fluid extract in cinnamon-water. Of its use, further experience only strengthens the good opinion of it I have elsewhere expressed in the treatment of this complication of prostatic enlargement.—*Lancet*.

MONTREAL GENERAL HOSPITAL REPORTS.—

It is proposed to issue a volume of Reports from the Montreal General Hospital, to be ready about the end of January. *Contents* :—
 1. On Leucocythemia, by Dr. Howard. 2. Medical Cases, by Dr. Ross. 3. Surgical Records (Plates), Dr. Roddick. 4. Case of Spinal Apoplexy, by Dr. Wilkins. 5. Anatomical Abnormalities (Plate,) Dr. Shepherd. 6. Eserine in Ophthalmic Practice, Dr. Buller. 7. Sixteen Cases of Excision of Breast treated Antiseptically, Dr. Roddick. 8. Cardiac Abnormalities (Plates,) Dr. Osler. 9. New Kymograph, Dr. Wilkins. 10. Results of Antiseptic System during two years in M. G. H., Dr. Roddick. 11. Miscell. Ophthalmic cases, Dr. Buller. 12. Remarkable Case of Favus, Dr. Roddick. 13. Condition of Fusion of Two Segments of Aortic Valves (Plates), Dr. Osler. 14. Softening of Brain from Aortic Aneurism, Dr. Wilkins. 15. Statistical Review of cases of Pneumonia, Typhoid Fever and Rheumatism, admitted during past ten years, Dr. Bell. 16. Pathological Report, Dr. Osler. 17. General Surgical and Medical Report, May, '77 to May, '78. Price, to subscribers, \$1; to non-subscribers, \$1 50. Subscribers' names may be sent to Dr. Osler, 1351 St. Catharine Street, Montreal.

Midwifery.

A CASE OF OBSTINATE MORNING SICKNESS CURED BY INGLUVIN AFTER FAILURE OF OTHER AGENTS.

BY R. L. PAYNE, M.D.,

Ex-President of the Medical Society of North Carolina; Member of the North Carolina State Board of Medical Examiners, etc.,
Lexington, N. C.

Mrs. R. S., a young married woman, eighteen years of age, came under my care March 27th, 1878, and as her case presented some peculiarities, I am induced to make the following report of it:

She was at this time advanced to the third month of pregnancy, and desired me to prescribe for the relief of obstinate vomiting, which she said began to be troublesome, as well as she could tell, at the beginning of pregnancy. At first it was confined to the early morning hours, but it had continued to become more aggravated, until now she vomited regularly throughout the whole twenty-four hours, whenever anything was taken into the stomach.

Before conception, she was a stout, rosy-cheeked, and somewhat fleshy woman; but when I first called to see her, she was a pale, hollow-eyed, emaciated creature, so feeble, indeed, as to be scarcely able to walk alone. Her pulse was frequent and feeble, beating 120 times a minute; temperature about 100°F.; tongue red and dry; and bowels constipated. The skin and the whites of the eyes were very decidedly tinged with yellow, as if in a mild case of jaundice.

I gave her six grains of calomel, to be followed on the next morning by a simple enema of soapsuds and salt, and prescribed the following infusion, which I found some years ago in the *Baltimore Medical Bulletin*, and which has been of signal service to me in many cases of morning sickness:

R. Pulv. Colombo ʒj.
Pulv. ginger..... ʒj.
Pulv. senna ʒss.
Boiling water..... Oj.—M.

Of this she was directed to take a wine-glass-full one-half hour before each meal.

March 30.—Saw the patient again, and found her not in the least degree improved, ex-

cept that her bowels were in a more soluble condition. I continued the infusion, and prescribed in addition ten grains of the subnitrate of bismuth three times a day; and as she was exceedingly feeble, and retained absolutely nothing upon the stomach, I ordered strong beef tea and brandy by enema every six hours. I also prescribed champagne, and as she particularly craved ice and acidulated drinks, they were allowed her *ad libitum*.

April 2.—Patient was no better; vomiting almost incessantly, but had retained the injections of beef-tea and brandy very well; had been crying for ice and lemonade. The champagne had not been procured, but she had been taking, instead of it, a very excellent article of home-made grape wine.

All remedies by the mouth were now discontinued except the wine and the biscuit, to each dose of which was added one-fourth of a grain of the sulphate of morphia. I know that opium is not highly recommended, and is not generally well borne in cases of morning sickness; but my patient was greatly in need of sleep, and I determined to try it.

April 5.—Patient was in all respects worse; vomited night and day; had slept none since my last visit. I gave one-fourth of a grain of morphia hypodermically, and prescribed twenty grains of the bromide of potassium three times a day, in the tincture of ginger, and nothing else by the mouth. Continued the soup and brandy by enema.

April 9.—Patient had slept more since I last saw her, but was not any better in any other particular. I continued the injections and the bromide, in twenty grain doses, at bedtime only, and prescribed the following powders:

R. Oxalate of cerium.....gr. x.
Subnitrate of bismuth.....gr. xxx.

M.—Make ten powders. S.—One powder every six hours.

This combination would have been given sooner, but some days elapsed before the oxalate of cerium could be procured. I forgot, too, to mention before this that milk-punch was allowed her all along whenever she desired it.

April 12.—The poor thing was very evidently worse. Pulse 130; skin cold; lips blue; eyes

sunken; countenance haggard—and she vomited everything swallowed—even ice, ice-water or lemonade. I continued the soup and brandy injections, and gave her the following diluted tincture of iodine :

R. Tinct. iodine.....gtt. xxv.
Alcohol.....f3iij

M. S.—Three drops every four hours in a teaspoonful of ginger-tea.

April 15.—The patient was still living, but there had been no change for the better; she was exceedingly feeble, but still retained the injections for several hours after they were given. The last prescription was continued, and she was allowed whatever she might fancy.

April 17.—Very little change since I last saw her; however, she was certainly not at all improved. The mouth of the womb was now dilated (as suggested by Copeman, of Norwich, England) by introducing the end of the index finger slowly and carefully within the external os, and forcing it gently up to the internal orifice, where it was suffered to remain for several minutes. I prescribed lime-water and milk, and continued the injections, and the milk-punch also, whenever she would take it; and this constituted the only treatment pursued whilst I was trying the effect of dilatations. The dilatations were repeated at regular intervals; that is to say, on the 19th, 20th, and 22nd days of April without the least apparent benefit.

April 24.—I dilated with the finger as above described, and also with Atlee's dilator, because I feared that perhaps the dilatation with the finger alone was not sufficient, as no good results had followed. The woman was evidently no better; she had retained nothing on the stomach, and was exceedingly prostrated. I was disappointed to see no good follow dilatation, since it had been so highly vaunted.

April 25.—Patient was no better. Dilatation having so utterly failed to bring relief, I next resorted to cauterization of the os externum and cervical canal with the solid stick of nitrate of silver, as recommended by Dr. Jones, of Chicago, and afterwards so highly approved by Dr. J. Marion Sims. I cauterized most thoroughly, and I thought that surely this would not fail, but it did fail utterly!

April 26.—She appeared to be *in statu quo*—no better, no worse. I came to the conclusion that the patient had a fair share of the *vis vitalis*. I prescribed carbolic acid three times a day.

April 27.—Patient still about in the same condition as when I last saw her. Now her tongue was dry and red; skin dry and harsh and cold; pulse very frequent and very feeble. She spoke in a whisper, and longed for nothing but ice. I told the family I feared the end was nigh! I had given it as my opinion sometime before this, that it was best to bring about abortion in order to give the poor sufferer the best chance for life; but then she was opposed to it; they were, also, and my advice was not taken. Now all the parties were very anxious to have it done. With my patient so extremely ill, and apparently so near to death, I was very loth to assume the responsibility of such a proceeding; yet I really saw no other possible chance to save her. Consequently I determined to adopt this chance as a *dernier resort*. I knew full well that if she died there would be some to say I killed her; and I knew also if she died with it not done, my conscience would ever trouble me.

Accordingly on the 28th of April, the os and cervix uteri were again dilated by the use of Atlee's dilator, the finger, and a large sponge tent, which last was passed entirely through the os interium and suffered to remain in position about twelve hours. Then Simpson's sound was carefully introduced to the fundus, and carried as carefully as possible (in order not to break the membranes) around the whole inside of the womb between the membranes and uterine walls. That night she began to have regular pains, and on the 30th of April she aborted. The vagina was kept securely plugged with carbolized cotton tampons, so that she lost but little blood while aborting, or subsequently. From this time she slowly improved, growing better every day until about the middle of May. Her lochial flow continued about twelve days after the abortion—becoming less each day until it ceased. Her pulse became less frequent and gained strength; appetite returned; stomach retained food; color improved; strength and flesh began to return, and I

thought that my patient was hastening to a speedy recovery.

But on the 16th of May she began to vomit again, and speedily lapsed into a condition to all appearances identical with the one existing before the abortion. Now, I freely confess, I was at a loss for a diagnosis. By the most careful examinations I could detect no inflammation or other diseased conditions of the uterus or its appendages, or of any of the pelvic viscera; consequently I could not now believe that the continued vomiting was dependent upon sympathy between the stomach and pelvic organs. Had long the persistent and unnatural action of the stomach induced inflammation or ulceration of that viscus? I was not exactly prepared to say, but prescribed lime-water and milk, gave small particles of ice, applied a large blister over the epigastrium, and sustained her mainly by soups and brandy by the rectum.

The next time I visited her, she was so little improved that I substituted bismuth for the milk and lime-water, and directed her to take nothing but these and ice by the mouth. The injections were regularly given. I saw her very often after this, and gave her, at different times, calomel and opium, creasote, oxalate of cerium, nitrate of silver, pepsin, lactopeptine, etc. After all other treatment had failed, supposing that her condition might be caused by malarial poisoning, I gave quinine freely by the mouth, by the skin, and by the rectum, without any perceptible benefit. At last, in spite of the untoward circumstances, she began slowly to improve, little by little, being sometimes worse, sometimes better, but gaining a very little all the while until September 3rd, when I discharged her.

And now I must make an honest confession and freely admit that I do not think she derived any special benefit from any remedy, except the ice and such as were given by enema. I think, too, that she would have died had she not aborted. What was the special lesion? what the diseased condition? In common parlance, what was "the name of the baby?" "This deponent saith not," not because he does not know, of course not! *We doctors always know!*

Was it sympathy between the stomach and uterus? Was it acute or chronic gastritis, or gastric ulcer? Was it simply the effects of malaria, or was it septicæmia? Was it chronic meningitis? Somebody please say. I mean after the abortion. Habit, they say, becomes a second nature. Was the vomiting kept up after the abortion by habit?

The case was to me a very interesting and very troublesome one. And there is another point of interest connected with it. The woman is pregnant again—gone about eight months. She was troubled with morning sickness in the early months of the present gestation.

I prescribed five grains of ingluvin (prepared by Warner & Co.), four times a day; it acted like a charm, and she is now happy and expectant.—*Virginia Medical Monthly.*

GINGIVITIS OF PUERPERAL WOMEN.

It is known that during pregnancy the gums frequently become red and congested; a slight pressure on them is sufficient to cause a moderate hæmorrhage. At a more advanced stage the teeth lose their solidity, become movable, and may be spontaneously shed from the alveolar cavity. Mastication is rendered difficult, but never causes such pain as is common in alveolo-dental periostitis. In examining the cause of this gingivitis, Dr. Pinard states that Delestre, in his thesis, lays stress on the congestion, tumefaction, and softening of the gums during menstruation, which proves that the functional activity of the ovary and uterus may react on the organs of mastication, and predispose them to congestion and inflammation. Previous pregnancies and a bad general condition seem to exert a great influence as predisposing causes.

This affection (puerperal gingivitis) ordinarily appears after the fourth month of pregnancy, and tends to disappear naturally a month or two after parturition. The local treatment consists in touching the diseased parts with a more or less concentrated solution of iodine, with glycerolate of tannin, chlorate of potash, chromic acid, etc. The local treatment which appears most efficacious, however, and is always crowned with success, is the daily application to the healthy and diseased margins of the gums of lint dipped in a solution of chloral and tincture of cochlearia, equal parts.—*N. Y. Medical Journal.*

PUERPERAL FEVER TREATED BY BENZOATE OF SODA.

Dr. Lehnebach writes in the *Allgemeine Medicin. Central-Zeitung* that in February last six cases of puerperal fever came under his care. In these cases, artificial interference had been necessary; and all the women were under the care of a very skilful and careful midwife. The source of infection could not be discovered. Three other women, under the charge of another midwife, in whom Dr. Lehnebach was called on to complete delivery by artificial means (one being a difficult forceps-case), were not affected. Of the six cases of puerperal fever, two (a primipara and a pluripara) died in a few days, in spite of the energetic use of quinine and wine. The symptoms were highly febrile, the temperature in the first case exceeding 109° Fahr. He was hence led to try, in the remaining four cases, benzoate of soda, as recommended by Klebs and Letzerich. The result was so remarkable that he believes that, if his experience be confirmed by that of others, benzoate of soda will be as much a specific in puerperal fever, as salicylic acid is in acute rheumatism. Of the four patients in question, two were primiparae and two pluriparae. In the cases of the primiparae, he was twice obliged to administer fifteen-grain doses of hydrochlorate of quinine along with the benzoate of soda, as the temperature rose to 105° Fahr. soon after labour. The action of the quinine was much more decisive than in the fatal cases, where he had given half a drachm; the temperature fell from 106° to 100.4° Fahr. Moreover, the quinine, when given with the benzoate, did not produce nausea; whereas in one of the cases it was almost immediately ejected by vomiting when given alone. Except in one case, the temperature did not again rise above 102.75° Fahr. Dr. Lehnebach says also that he has had much success in the treatment of gastric catarrh in children, and of diphtheria, from the use of benzoate of soda—administered in the latter disease both locally and internally.

Dr. John Kirkpatrick, of Chippewa, Ont., has received British Government appointment on the West Coast of Africa

Original Communications.

ON THE ACTION OF STRYCHNIA, FROM A NEW STANDPOINT.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.

It is nothing new to refer the tonic and invigorating effects of strychnia, in medicinal doses, to a species of food-action, which it has in common with arsenic, phosphorus, and some other drugs. It is with its poisonous effects that we here propose to deal; and among the most prominent of these are spasmodic contraction of the muscles.

On the physiological theory at present in vogue, these spasms and tetanic contractions are due to an excess of nerve force developed in the spinal centres, as the effect of this drug, in consequence of which "the muscles receive from the nerves a preternatural stimulus to action." (*Pereira.*) We have had the boldness to challenge this theory, and availing ourselves of the facts of physiological experimenters, have endeavoured to show cause why it should be set aside as erroneous, and its place supplied by a theory more in accordance with the general facts. Physiologists assign to muscular tissue an inherent contractile power of its own, and we contend that the real function of nerve force is to restrain and antagonize this contractile power of the muscles—of the muscular walls of the hollow viscerae and of the muscular coats of the arterioles, all of which, in death, when nerve force is completely extinct, pass into a state of permanent contraction, which only relaxes in the disintegration of putrefaction.

As the facts of strychnia poisoning, as popularly interpreted, are directly antagonistic to the theory just mentioned, it behoves us to show, if we can, that the popular interpretation of the facts is erroneous, and that the view here set forth, and elsewhere advocated at greater length, is really the true explanation of the facts on record. To this we address ourselves as briefly as possible.

Among the symptoms of strychnia poisoning, apart from the spasms, are anxiety, trepidation, formication of the skin, coldness of the surface, depression of spirits, feeling of weight and weakness in the limbs, difficulty in keeping the

erect posture, staggering, vertigo, appearance and sensations of intoxication, swollen veins, bloatedness and lividity of the face, blueness of the hands, quick and weak pulse, dilated pupils, involuntary escape of urine, asphyxia, final exhaustion and death. No drug produces effects like these *as a stimulant*: most of them, on the contrary, are among the symptoms of the paralysis produced by narcotics.

Dr. Pereira quotes a number of authorities to show that *softening* of the brain (especially the cerebellum) and the spinal cord are among the effects found on dissection after death from strychnia. Is not a deprivation, arrest, or paralysis of nerve power, to be predicated from centres so conditioned, rather than a "preternatural" generation and "discharge" of nerve force?

Strychnia belongs to the same botanical genus, or family, as curare; and the methyl and ethyl compounds of strychnia, while retaining most of their chemical properties and giving the ordinary reactions of strychnia, have a similar action to curare, and, like it, are known to be profound paralyzers. This fact, though by no means conclusive, is highly significant, and the presumption from it is, that strychnia is invariably a paralyzer, but has its mode of paralysis modified by the different combinations into which it enters.

Dr. Ringer states that "most of the opium alkaloids affect the body in the same way" as strychnia. (*Ther.*, p. 498.) Thus opium itself tetanizes frogs, and "morphia employed hypodermically, in very large doses, never causes sleep, nor stupor, but convulsions" (page 478). This similarity in effects between avowed narcotics like these, and strychnia, is surely best explained, not on their antagonism, but on the similarity of their mode of action. Narcotics are invariably paralyzers (*Anstie*), and if strychnia behave like a narcotic, it is fair to class it as a paralyzer also. Dr. Ringer further states that, as a result of strychnia poisoning, the motor nerves convey impressions imperfectly, which is surely more naturally attributable to depression, or paralysis, than to stimulation of their functional activity. It also appears that strychnia sometimes kills without inducing spasms or convul-

sions, and Dr. Ringer says it then "apparently directly depresses the motor nerves," since these are found to have lost their conductivity. These are probably the class of cases in which Pereira says strychnia causes death "by excessive exhaustion of nerve power;" conditions of "depression" and exhaustion wholly inconsistent with the idea of true stimulation.

Dr. J. Harley has shown that strychnia prevents the oxygenation of the blood, and Dr. C. B. Radcliffe, F.R.S., argues that such an effect is equivalent to the loss of blood; since blood so conditioned is useless in the organism, and might as well be withdrawn. As Dr. Anstie remarks, in view of these facts, a drug which produces such an effect "can hardly be supposed to communicate increased force to the nervous system." (*Stim. and Narc.*, p. 72.)

Here, then, are a series of facts in regard to strychnia poisoning, which it appears impossible to reconcile with the theory that this drug is an excitant to the nervous system, and evokes nerve force in a "preternatural" manner as a stimulant to the muscles. These facts are, however, fully in accord with the theory that muscular spasms are due to the withdrawal of nerve force, and that strychnia "depresses the motor nerves" so effectually as promptly to set the muscles free,—which is the very condition of the motor centres, which the physiological experiments of Sir Astley Cooper, Drs Kussmaul and Tenner, Dr. Brown-Sequard, and others, as quoted by Dr. C. B. Radcliffe, F.R.S., (*Lecture on Epilep.*, etc.), show to be most favourable to the occurrence of muscular contraction.

Dr. Anstie, among other statements strongly corroborative of this theory, writes that "convulsive movements never occur till such a late stage of the narcosis as necessarily implies that the life of the nervous system is greatly impaired. Even in the case of strychnia poisoning, the apparent increase of common sensibility, which exists between the spasms, is accompanied, as we have already seen, with loss of discriminative power in the organs of special sense," as well as in tactile perception. "The influence, therefore, *be it a compelling or liberating power*, which presides

over muscular contraction in the interest of life (that is, of individuation), must be a co-ordinative influence and we cannot be wrong in supposing that an agent which breaks through the communications, at any part, must be a devitalizing agent, whatever may be the result to *that portion of the muscular system which is thus cut off from the general life of the body.*" [The italics are ours.] (*Stim. and Narc.*, pp. 194, 5-9.) Indeed, it may well be questioned whether so potent a poison would ever have been classed (in poisonous doses) as a spinal stimulant, were it not necessary so to regard it in deference to the popular theory that muscular contraction is dependent upon a stimulus from the nervous system. "What do we know, for instance, or what did we know till quite lately, of the real physiological action of strychnia, one of the most remarkable medicines which modern practice employs? We assumed that it was an irritant to the spinal cord, but *this was merely in deference to preconceived ideas as to irritability*, so far are modern empirics from throwing off the yoke of theory; and, in fact, the researches of Dr. Harley were the first scientific attempt to give an explanation of the matter." (*ib.* p. 73.) It was, then, out of regard for the theory of the day, and not from anything in the facts of strychnia poisoning themselves, that Dr. Pereira and others have been led to infer that strychnia is an excitant to the spinal cord, and that under its influence "the muscles receive from the nervous system a preternatural stimulus to action." This was surely a slender basis for a doctrine which passes current, as though its claims had been established with scientific accuracy: a doctrine which, after all, is a mere inference from preconceived ideas regarding certain facts, and must not be confounded with the facts themselves, which may admit of a very different interpretation. It is, moreover, a doctrine which draws very largely upon our credulity; for it requires us to believe that the vitality of the organism is extinguished by the very agent which is said to exalt vital power to the highest point of development, and at the very moment when it is so exalted.

Let us pursue the subject a little further. "Strychnia affects paralyzed sooner than unparalyzed muscles." (*Dr. Ringer, Ther.*, p. 500.) The same is true of electricity, and in both cases the fact is unaccountable on the view that these agents are stimulants to nerve tissue. It admits of an easy and natural explanation on the view that enfeebled motor nerves more readily succumb to a paralyzing agent than do healthy nerves; and thus the muscles of the implicated limb are sooner set free, to pass into a spasmodic state, than are the muscles controlled by the more vigorously acting nerves of the healthy limb.

Again, after poisoning by strychnia, electricity fails to produce muscular contraction when applied to a motor nerve. Why? Because strychnia has depressed the functional power of the nerve, and proportionably set the muscle free. Electricity not being a stimulus, does not improve this condition (as a stimulus ought to do)! If the nerve *trunk* is quite paralyzed, and electricity can deaden it no further, it will fail to set the muscle free to contract any more than at present. If the electrodes are then transferred to the muscle itself, contractions may occur—a fact which is to be explained on the ground that the terminal fibres of the nerve has retained its molecular polarity, and, with this, its restraint over the muscle after the nerve trunk has ceased to act. Electricity here simply overthrows muscular polarity in its last retreat—that of the intra-muscular nerve endings. When this is accomplished, electricity produces no further effect on the muscle, which is (erroneously) said to have lost its "irritability."

This view of the case explains other apparently anomalous conditions. Thus, if the sciatic nerve of a frog be cut, and the animal be then poisoned with strychnia, all the muscles of the body, except those supplied by the cut nerve, are convulsed; and the terminal fibres of the cut nerve retain their "irritability" longer than those of the undivided nerve of the other limb. Here the nerve centres are paralyzed with an intensity sufficient to reverse molecular nerve polarity all the way to the muscles, which are consequently set free to contract. But in the case of the cut sciatic

nerve, the paralyzing wave reaches no further than the point of section ; and its distal portion, having its molecular state undisturbed, retains control over the muscle, which, as a consequence, exhibits no spasms.

This explanation appears to us much more natural and physiological than that of Dr. Ringer (*Ther.*, p. 499), who states that "the unconvulsed muscles and nerves [of the limb whose sciatic nerve is cut] are as much poisoned by strychnia as the parts [of the body generally] which are convulsed." We do not believe that the muscle is paralyzed, to the impairment of its contractile power ; because this inherent power of the muscle, apart from the maintenance of its nutrition, is independent of vital processes, and survives even the general death of the organism. Whatever is done by strychnia is done to nervous tissue ; and as nerve trunks are not originators, but mere carriers, of nerve force, modifications of this force must come from their headquarters—the nerve centres. Poisoned blood cannot influence the axis cylinder of a nerve trunk, because the membranous sheath which surrounds it is not penetrated by blood-vessels. (*Dr. Carpenter's Phys.*, p. 335.) And if this be true, the distal portion of the cut sciatic, not being *directly* poisoned by the strychnia in the circulating blood, and not being reached by any influence emanating from the nervous centre (from which it is separated), is in the condition we have assigned to it : its molecular polarity is undisturbed, and it continues to restrain its muscles, which alone exhibit no signs of spasmodic contraction.

The same explanation applies to the non-contraction, for a time, of muscles whose motor nerves have been purposely or accidentally severed ; to a similar non-contraction of muscles in ordinary hemiplegia and in the milder forms of paralysis of the nerve centres by drugs ; for though in these cases the power of the nerve centres is exerted towards the muscles, the morbid action is not sufficiently intense to overthrow the molecular polarity throughout the entire trunk of the peripheral nerve, the distal extremity of which, as stated, maintains its previous polarity, and with this its restraint over the muscle.

The foregoing view of the stability of the molecular state of peripheral nerve trunks is fully borne out by the observation of Dr. Thomas Laycock, Professor of Edinburgh University, who states that "numerous experiments on the nerves of muscles show that the motor nerve fibrils have their own inherent properties in entire independence of brain, spinal cord, or nerve centres ; and not only in separate limbs, but in muscles that have been cut from their limbs." (*Med. Times and Gazette*, 1871 ; *Braith. Retros.*, January, 1872, p. 58.)

From these considerations we may deduce the following general principles :—

(a) A drug, or disease, which paralyzes the nervous centres, may fail to reverse the molecular condition of the motor nerve trunk all the way to its terminus in the fibre cells of the muscle ; and when this is the case, the restraint of the nerve over the muscle is not withdrawn, and the muscle cannot pass into a state of spasm.

Examples.—Cases of hemiplegia without spasms of muscle. Cases of section, injury or paralysis of motor nerve trunks, where the intra-muscular motor nerve endings serve to retain control over the muscle and prevent its contraction.

(b) When the paralyzing effect of a drug, or of a lesion in the motor nerve centres, reaches the terminal portion of the motor nerve trunks (that is, reverses the previous polarity of its molecules), the muscle is promptly set free and passes at once into a state of contraction, which will be clonic or tonic in proportion to the alternate or permanent character of the molecular change thus produced.

Examples.—"The swift destruction of the life of the spinal nervous centres . . . as in poisoning by large doses of strychnia" (*Anstie*) ; the paralysis occasioned by large doses of morphia, hypodermically administered (before referred to) ; the paralysis of electrical currents ; and the effect of those lesions of the brain which induce the speedy onset of "early rigidity," the onset of epilepsy, etc. These intenser perturbations of the nervous centres brook no delay, but promptly effect the overthrow of normal nerve polarity from centre to periphery, setting the muscle free, and, in death accelerating the onset of *rigor mortis*.

Antidotes to Strychnia.—So much for the actual phenomena of strychnia poisoning, the facts of which it will be seen accord well with our theory. Now a few words as to the antidotes to strychnia. The chief of these is chloral hydrate, which, in large doses—such as must here sometimes be given—would, under ordinary circumstances, prove dangerous, from its decidedly narcotic and paralyzing effect, and, apparently, ought rather to aggravate the condition, if, as we contend, strychnia be itself a paralyzing agent.

But, if the authorities are to be believed, the first effect of this drug, as ordinarily administered, is that of a stimulant. The remarkable flushing (vascular dilatation) it produces has been fully noted by Dr. Crichton Browne and others. Dr. W. A. Hammond states—"I have seen it produce great increase in maniacal excitement. *Its first effect is always to augment cerebral congestion,*" etc. (*Dis. Nerv. Syst.*, p. 383.) Increased blood supply to the nervous centres is the prime condition for augmentation of nerve force, which is here necessary to counteract a powerful paralyzer. We explain the beneficial effects of large doses of this drug in strychnia poisoning, on the same principles as the use of large doses of alcohol in fever, or of opium in tetanus, of which Dr. Anstie writes—"There would seem to be little difficulty in deciding that *the ordinary stimulant effect of small doses of alcohol and opium may be produced in cases of acute exhaustion of the nervous system by doses of these drugs which, under other conditions, would be narcotic in their action.*" (*Stim. and Nar.*, p. 213.)

All that it is necessary to say here of calabar bean, as a reputed antidote to strychnia poisoning, is, that Dr. Huseman, a German authority, reports it as "entirely useless" for this purpose; and the Edinburgh Committee, presided over by Dr. J. H. Bennett, find that while strychnia and calabar bean modify each other's effects, they mutually fail to prevent death from a fatal dose of either. "On the contrary, the advent of death was accelerated." (*Report*, p. 92.)

Cases are reported in which bromide of potassium has apparently effected cures in strychnia poisoning. The efficacy of this drug,

in many cases of epileptic spasms, is well established; but it is not by any means an indiscriminate remedy here. It is not merely useless, but injurious, in epileptic seizures in which the condition of the brain is that of anæmia, as is usually the case in convulsions occurring during sleep. It is in those not unfrequent cases of dilated arteries, with a sluggish blood-stream, that this drug (as well as digitalis, belladonna or atropia) best displays its beneficial effects. Here it acts by reducing the calibre of the dilated vessels to normal proportions, thus quickening the blood-stream, and in this way contributing effectually to the nutrition of the nervous centres. Thus, under the conditions stated, these several drugs become indirect stimulants to the nervous system; and in accordance with the theory we advocate, they do this consistently with their general action as depressors or paralyzers of nerve function. By a sedative or depressant action on the vaso-motor nerves, the *dilating* power of which over the arterioles is lessened, a preponderance is given to the contractile influence of the muscular coats of the arterioles, which, like other muscular tissues, possess this inherent endowment. As a consequence, the calibre of the over-dilated vessels is reduced, and these vascular tubes are "tightened," so as to favour a more rapid blood-stream, and its consequences in improved innervation, as stated above. It is true these effects on the circulation are also attributable to strychnia; for, as Dr. J. Milner Fothergill states, "the small arteries have been seen to contract in strychnia poisoning;" and on this account it is highly improbable that bromide of potassium will prove a reliable remedy in other than very exceptionable cases of strychnia poisoning. Cases of strychnia poisoning cured by calabar bean have also been reported; but, as already stated, this drug has been authoritatively declared worthless for this purpose. It is, therefore, not too much to infer that these alleged cures were either cases of spontaneous recovery, or else the other means resorted to prevented a fatal issue.

The very fact stated above, that strychnia produces arterial contraction, is a proof that it is not a stimulant to the nervous centres; for

no drug produces this effect as a stimulant, but rather the contrary. In death, when nerve force is extinct, the entire arterial system is as much contracted as it is possible for it to be, and is empty, the blood being extruded into the veins which have a larger capacity. Any drug, therefore, which produces arterial contraction tends to bring about a state similar to that in which nerve force is inoperative, and this is the role of a paralyzing and not of a stimulating agent.

Dr. J. Milner Fothergill also states that, "when death is induced by strychnia poisoning, it is brought about by asphyxia; the muscles connected with the thorax being so spasmodically contracted in the convulsions that the respiration is arrested." (*Antag. of Ther. Agents*, p. 55.) He also states that "it is certain that strychnia does not act upon the muscles directly, but mediately, through the nervous centres." Here it is evident that an "anti-spasmodic" is urgently required; and it cannot be denied that our anti-spasmodics, as a class, are stimulants, and that they are effectual just in proportion to their stimulating character. How is this fact to be accounted for, if, in states of spasm, the nervous centres are already unduly active and are "preternaturally" stimulating the muscles? The fact is very naturally accounted for, if nerve force is here in abeyance, and the muscles are taking advantage of the absence of their customary nervous restraint to assert their inherent and independent power of contraction. On what other view of the case than this can the fact be explained that "stimulants" are by far the most curative agents in tetanus, as Dr. W. A. Hammond has proved by statistics? (*Diseases of the Nervous System*, p. 541.) Accordingly, we find evidence accumulating as to the value of dilute alcohol as a successful antidote to strychnia, as it has long been known to be to the poison of snake bites.

In a case reported by Dr. Dobie, ammonia, brandy and digitalis were given with "marked improvement." Sir Thomas Watson reports favourably of the effects of brandy and water in the cases of two patients suffering from the spasms of strychnia poisoning. (*Lectures, etc.*, p. 378.) The *Canada Lancet* for August, 1878, p. 360, contains a translation from an Italian

journal of a case of this kind, in which 36 grains of strychnia had been five hours in the patient's stomach, and in which the cure, which was happily effected, was attributed to the injection into the rectum of 500 grammes (nearly 20 ounces) of brandy in a like quantity of water, and 2 grammes (a little over half a drachm) of laudanum, "to secure retention of which a tampon was inserted in the anus." The convulsions ceased as this stimulating fluid became absorbed; the only other treatment adopted being the administration of a pint of olive oil and a draught of ioduret of potass. and iodine in water, which the physician in charge properly regarded as of doubtful value. No vomiting had occurred, and the oil had to be introduced through the vacancy caused by the absence of two teeth, so strong was the trismus.

The *Practitioner* (vol. xv., p. 220) quotes from the *Pacific Medical Journal* the following narrative by Dr. Morey, which indicates the antidotal power of strychnia over alcohol:—"I first became acquainted with this man in 1861. He was in the habit of eating strychnia after a long debauch, and in a condition bordering on *delirium tremens*. He took the bottle of strychnia, poured some of it into his hand, and threw it into his mouth, carelessly, as though it were salt; and in the course of half an hour, not feeling the effects he had wished, he repeated the dose, and continued it until he became perfectly sober. The quantity required would correspond to the length of time he had been drinking and the quantity of whiskey he had taken. I was struck with the wonderful effect it had to completely sober him, and leave the system so entirely free from any nervous disturbance, and without the reddened and bloated appearance of the face and irritable stomach of the drunkard. After a drinking bout of two weeks, he got up as clear and bright in the morning as if he had taken no liquor at all. Though previously on the verge of delirium, the strychnia made his mind clear, his eyes bright, his skin clear and fair, with all the appearance of a man in perfect health and vigour. He ate his breakfast in a hearty manner, and went to his work as though he had never taken a drop of liquor in his life.

This man commenced to use the strychnia in 1856. From 1861 to 1867 I saw the patient frequently, and almost as often have seen him take the strychnia, until it ceased to be a curiosity except to study its physiological action. In every instance when he took it, the appearance of dissipation would disappear in a short time. Whether strychnia is an antidote to alcoholic poison, and *vice versa*, was a study for which I could find no authority to guide my conclusions."

The foregoing appears to have been an exceptional case, in which, either from a tolerance of the drug acquired by use, or from idiosyncrasy, the medicinal or food-action of the poison was obtained from doses which would be ordinarily dangerous or fatal. That the invigorating effect of medicinal doses of strychnia should tend to obviate the partial narcotism and semi-paralysis of the victim of an alcoholic debauch is not to be wondered at. A similar effect is attributed to ammonia, a well known stimulant. Taken in connection with other facts—especially the influence of alcohol over strychnia poisoning—it may be that the alcohol in this case proved the chief cause of the tolerance of the unusual doses of strychnia; and if this should be verified by further observations, the mutual antagonism between strychnia and alcohol would be established.

In the *American Journal of the Medical Sciences* for October, 1879, page 587, we find a condensed article on this subject from the *Practitioner* for September, 1879, from which we quote as follows:—"Dr. Huseman has confirmed (*Arch. f. exp. Path.*, x., p. 101) the experiments of Amagat that, in cases of poisoning by small doses of strychnia, the treatment with alcohol is to be preferred to the treatment by chloral. The reason for this is, that the quantity of alcohol required to neutralize the small but fatal dose of strychnia is not dangerous to life, although such may be the case from the amount of chloral administered."

Why the same reasons should not apply equally to large doses of strychnia as to small but fatal ones, and the relative effects of chloral and alcohol as antidotes, is not clear from what follows in the article referred to. If the larger dose of alcohol here required would be danger-

ous from its narcotic effect, the same objection ought to apply to chloral; and if the effect of the strychnia is to afford a tolerance for the one, it ought, and probably does, for the other also. Indeed Drs. Stillé and Maisch, while endorsing the value of chloral, in reducing the force and frequency of the paroxysms in strychnia poisoning, add, "but a lethal dose of strychnia cannot be combatted by an adequate dose of chloral, which would be equally dangerous to life." (*Nat. Dispos.*, p. 394.)

This is all we have to say on this subject at present. We think sufficient evidence has been produced to justify the conclusion that the prevailing opinions regarding the mode of action of strychnia have been formed without due consideration, and in deference to a preconceived hypothesis which has since been greatly modified: that these opinions do not rest on any scientific basis whatever, and having outlived their time, urgently require reconsideration. We think it will also be obvious that both the facts of strychnia poisoning, and of its antidotal treatment, prove that strychnia is not a stimulant, but a paralyzer of the nervous centres which it chiefly influences, namely, those of the spinal cord; and that its effect on the motor nerves is such as to paralyze their action, proportionately setting the muscles free to exert that inherent contractile power with which they are endowed, and which eminent physiological experimenters have declared displays itself in proportion to the freedom of the muscles from the influence of the nervous centres.

DEFINITION OF EVOLUTION.—The *Chemist and Druggist* observes that it was Herbert Spencer who made the following definition of evolution: "Evolution is a change from an indefinite, incoherent homogeneity to a definite coherent heterogeneity, through continuous differentiations and integrations." And it was the mathematician Kirkman who translated the definition into plain English: "Evolution is a change from a nohowish, untalkaboutable, all-alikeness, to a somehowish, and in-general-talk-aboutable, not-at-all-alikeness, by continuous somethingelseifications and sticktogethurations."

Translations.

THE INOCULABILITY OF CERTAIN SKIN DISEASES.

Dr. E. Vidal, of the *Hôpital Saint Louis*, at the Geneva Congress set forth the result of his numerous experiments upon this subject.

Certain skin affections are inoculable. We can reproduce the pustule of ecthyma, the vesicopustule of impetigo, the vesicle of herpes, and the brella of epidemic pemphigus of the new born, either upon the subject himself or upon a healthy individual. They are inoculable and autoinoculable. Other affections, although perfectly characteristic and typical, are not inoculable; such are eczema, hydroa, herpes zona, pemphigus dintinus, and, probably, molluscum contagiosum, or acue varioliforme.—*Gaz. des Hôpitaux*.

OPIUM FOR INFANTS.—PARROT.

In an admirable paper on the treatment of Athrepsy in Infants Parrot (*Gaz. des Hôp.*) thus refers to opium:—"I like not the employment of opiates for babes. Trousseau detested them; he had seen accidents determined by a single drop of laudanum in a child one year of age. I, too, have seen one drop of laudanum (of Sydenham) produce coma, and algidity lasting 24 hours in a child of the same age. At the age of a year and a half, or ten years, laudanum must be given only in the dose of *one drop* per 24 hours, and *well divided*. We should mistrust it in all shapes: if it be given by enema we cannot tell how much is taken into the system, and if given by the mouth it is rapidly absorbed."

THE TINCTURE OF EUCALYPTUS GLOBULUS IN THE TREATMENT OF CROUP.

Dr. Walcher communicated to the Medical Society of Strasbourg, in May last, a paper bearing this title, which in the *Gazette Médicale*, for October, from which we make the following extract:—"But in the cases where this heroic means (tracheotomy) cannot be applied, you will obtain, in children suffering from croup, many more recoveries from the tincture of eucalyptus, than from chlorate

of potash, cubebs, or copaiba and the usual simple tonics. I may sum up by saying that the tincture of eucalyptus is a very powerful tonic and stimulant remedy in diphtheria in general, and especially most useful for the local manifestation in the larynx, the croup so common in infancy."

CREASOTE IN PHTHISIS.—REUSS.

Dr. Reuss (*Jour. de Thérapeutique de Gubler*) does not desire to make creasote an universal panacea in phthisis, but he believes that, administered in an inoffensive form, it may render great services. The formula which he employs is the following:—

Pure balsam of tolu. 0.20
Pure beach creasate. 0.05
Excipient q.s.

He gives this preparation in the form of *dragées*, or capsules, and orders two in the morning and two at night, gradually increasing the dose up to ten per day. He concludes his interesting monograph by declaring with MM. Bouchard and Gimbert that creasate does not *cure* phthisis, but that it produces a modification of the diseased lung the anatomical characters of which we are not at present in a position to appreciate.—*Gaz. Méd. de Strasbourg*.

SOLUTIONS OF ERGOTINE FOR HYPODERMIC INJECTION.—(THESE BESNARD.)

- (1) Ergotine, 2 grammes (3ss); water, 15 grammes; glycerine, 2 grammes (Hildebrandt.)
- (2) Ergotine, 2 grammes; water, 15 grammes; glycerine, 15 grammes (Moutar-J-Martin); 1 gramme of this solution contains 0.666 mill. of ergotine, and is equivalent to 0.50 of ergotine.
- (3) Ergotine, 2 grammes; water, 30 grammes (Bucquoy.)

(4) Yvon's extract of ergot, 1 gramme, 20; water, 8 grammes, 80 (Dujardin Beaumets). A strong solution double the strength of the preceding.

Yvon's extract is recommended for its inalterability, and because each gramme corresponds to one gramme of ergots.—*Le Progrès Medical*.

SELEREMA OR ALGIDE ŒDEMA OF THE
NEW-BORN.

This affection occurs between the first and the eighth day after birth, and attack especially children debilitated from any cause (disease, defective alimentation, or absence of maternal hygiene), or those who are born before time. It commences on the hands, the feet, or the face, the skin becomes violet, yellowish, the child cries weakly and succumbs between the second and eighth day, from pulmonary congestion or pneumonia. Out of twenty-nine children untreated M. Roger has observed only two recoveries. A rational treatment justifies the hope of more. The characteristic of this affection is an extraordinary lowering of the body temperature of the child. It falls lower than in cholera, and even that observed in ten or fifteen hours after death, notwithstanding the thoracic complications which ordinarily occur *in extremis*. Other affections which depress animal temperature, infantile cholera for example, scarcely carry it to 35° in place 37° the normal state. In selerema or the algide œdema of the new-born, on the contrary, M. Roger has found in the axilla a mean of 31°; out of 52 cases, 19 time it was 33°; 7 times 26°; and he has met with the extremes of 25°, and even 22°. Taking the temperature in the rectum, M. Parrot has arrived at the same result, which proves that the depression of temperature is the chief point to combat. With this object Dr. Chossat has tried, in the beginning, cold affusions, so as to awaken the functions of the skin, but only if the depression of temperature is still inconsiderable, for reaction is of course necessary. Later, all means of excitation of the cutaneous surface should be employed: fomentations, frictions, envelopment in hot coverings, and hot sand-bags placed in the bed of the little patient, etc. By means of this treatment, out of six cases Dr. Chossat has saved three.—*Le Praticien*.

CANADIANS IN ENGLAND.—J. C. Cleaver, of Carleton; J. Bowring Lawford, M.D., McGill; and William H. Henderson, M.D., Kingston, have been admitted members of the Royal College of Surgeons, England.

Formularies.

SOLUBILITY OF QUININE SALTS.

Quinine sulphate dissolves in 100 parts of water.			
"	bisulphate	"	10
"	muriate	"	24
"	bromide	"	50
"	hypophosph.	"	60
"	valerainate	"	110
"	tannate	"	500

HAIR TONIC.

Hoffmann's balsamic mixture...	25	parts.
Glycerine	25	"
Rose water	100	"
Tinct. cantharid	4	"
Carbonate of ammonia.....	5	"

Shake well and filter after one hour. Rub well in once a day.

Hoffmann's Balsamic Mixture is composed of the oils of lavender, cloves, cassia, thymelemon, mace, and neroli, of each four parts; balsam of Peru, twelve parts, and alcohol 1,000 part. It is also called *Hoffmann's Balsam of Life*.—*Druggist Circular*.

REMEDY FOR COLD FEET.—The Russians have, it appears, a most simple and efficient remedy for cold feet. It consists in enveloping the foot, outside the stocking, in a large piece of paper before putting on the boot. The air being excluded, cold is absolutely avoided. It would appear that the *belles élégantes* of St. Petersburg do not disdain to employ this precaution, but envelope the foot and leg high up.—(*Lancette Belge*).—*Gazette des Hôpitaux*.


CHOREA—TREATMENT BY HYPODERMIC INJECTION OF ARSENIC.—Dr. Wm. A. Hammond employs Fowler's solution of arsenic hypodermically in obstinate cases of chorea. He selects the front of the fore-arm as the most suitable place, and injects into the cellular tissue. The dose should be diluted with an equal quantity of water or glycerine. Larger doses may be given than are tolerated by the stomach. He has even given thirty-five drops as an initial dose without unpleasant symptoms following. Marked improvement has frequently followed a single injection.

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical
 Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, JANUARY, 1880.

 **HAPPY NEW YEAR.**—We hope our subscribers will not wait to receive their bills, which will be enclosed next month. Many of our friends have already been frequently reminded of their arrears, and should remit at once.

TRINITY COLLEGE MEDICAL SCHOOL
 ANNUAL DINNER.

The Third Annual Dinner of the Students of Trinity College Medical School took place on the evening of December 5th, and was largely attended by guests, graduates, and students. Among the guests were Drs. Geikie, Aikins, O'Reilly, Graham, Covernton, McDonald (of Hamilton), Justice Cameron, Goldwin Smith, Dr. Pyne, and others. Mr Black in the chair, and Messrs. Brett and Urquhart, as vice-chairmen, fulfilled their duties admirably. The proceedings were enlivened by music at intervals. Mr. Irish, of the Rossin, provided, as usual, in his excellent manner. After reading letters of apology, the usual loyal toasts were given. For the "Legislatures," Dr. D. Clark replied, and was, as might be expected, sound in his remarks on medical legislation concerning Canada. Mayor Beaty spoke for "The City of Toronto," and regretted the absence of a medical man in the Council.

Mr. Urquhart, the second Vice-President, proposed "The Learned Professions."

Mr. Goldwin Smith responded. Although he was a votary of learning, he had never had a profession. He had learned a little of law, but not enough to do him any harm, or to enable him to do any harm to his neighbours.

(Laughter.) There was only one way in which he could claim to be a professional man, and that was in the respect alluded to by the old sage who had left us the adage that a man at forty is either a fool or his own physician. (Laughter.) He supposed a man exceptionally gifted might be both. (Renewed laughter.) Not being exceptionally gifted, and having arrived at the age of forty, he hoped he was his own physician; not that he would "quack" himself, for when his time came, he meant to go out of the world *secundum artem*, and by the hands of a learned professor. (Laughter.) Quacks obtained a great deal of sympathy from the masses, who commonly regarded them as persecuted men of genius—and indeed they did frequently fall under the persecution of the police. (Hear, hear, and laughter.) People would do for a quack often what they would not do for the regular physician. They would obey a quack, in whose words they fancied there was some magic, when they would not obey the regular physician, in whose words they thought there was no magic. There was no body of men—and he made no exception—to whom the world owed greater gratitude than it did to physicians. (Applause.) There was no body of men from whom society received so much, and to whom it paid so little. Might the medical profession in Canada grow in honour and usefulness, in science and beneficence, and in the gratitude of mankind. (Applause.)

Mr. Justice Cameron, in replying on behalf of "The Legal Profession," said he had always held the opinion that it was unfortunate that we had so many universities as we have, and that if we had a greater number of colleges and only one university it might be better for us. (Hear, hear, and applause.) He pointed out that this country, though now robust and able to stand alone, had been nursed in its infancy by the Mother Country at great expense, and, therefore, when the Mother Country chose by its legislation to say that the rights of a man who had attained a certain position in education there ought to be respected all over the world, we, as subjects of the land, ought to hesitate before we said that the Mother Country had been doing an injustice. If they

thought a man's education in England was not sufficient, then they would be right in saying that he should not be registered here; but they should be able to say that we who claimed to be on a level in matters of medical education with Great Britain expected that if her sons came to practise here we should have reciprocity, and be allowed to practise there. (Applause.)

Rev. W. S. Rainsford replied for "The Clergy."

Mr. Vankoughnet returned thanks on behalf of "The Bar."

"The Universities with which we are affiliated and sister institutions" was the next toast.

Rev. J. Langtry replied on behalf of Trinity University. After Dr. Geikie, he had the vanity to think he had more to do with the establishment of Trinity College Medical School than anybody else. (Applause.) He did not mean to say that he had done the work, but he had pulled the wires while Dr. Geikie had done the work. He trusted that the bonds between the School and the College would every year become more closely drawn. (Applause.)

Prof. Croft, on behalf of the University of Toronto, observed that there was some improvements which he would yet like to see effected in that institution, among which were the establishment of the degree "Bachelor of Science," and the abolition of the regulation which prevented members of the Senate from becoming examiners.

Mr. Shaw replied on behalf of the University of Halifax, and Mr. Ferguson for the University of Manitoba.

Dr. Geikie, in replying to the toast of the "Trinity Medical School," said that it was never more prosperous or numerous attended than at present, and this was due to the students themselves and to the faculty of past years. The General Hospital, which is now in a better condition than at any previous period, had been a great aid to the School, and their thanks were due especially to Dr. O'Reilly and the trustees of the Hospital for many kindnesses. He commended the single portal system for entrance to the medical profession,

as affording a better guarantee than any other of efficiency in the profession.

Dr. Aikins then spoke for the Toronto Medical School. He also expressed himself in favour of many colleges but one university, which would raise the standard of education, create a healthy rivalry, and result in our degrees being respected abroad. Regarding the question of medical reciprocity between England and Canada, he said that if all those sent out from England were men of high attainments they would not object. But it was a fact that the British Medical Council itself had long been struggling for a central system of examination, because it had no confidence in the twelve or twenty institutions which had now the privilege of registration. It would not be fair to refuse to accept the degrees of our own universities, and welcome graduates from English universities. This winter there were between 250 and 300 medical students in Toronto, where he supposed three-fourths of the medical men of Ontario were educated, and it was therefore in the public interest that medical men sent out from this city should be highly qualified. In order to this end, the Government ought to increase its assistance to the Hospital so that outside patients should not be prevented from coming here.

"The College of Physicians and Surgeons" was replied to by Dr. McDonald, of Hamilton; and "The General Hospital and Trustees," by Dr. O'Reilly and Mayor Beaty.

The toasts of "Graduates and Undergraduates," "The Ladies," and "The Press," were afterwards duly honoured.

MRS. PEARSON'S ABDOMINAL SUPPORTER.—We wish to call the attention of our readers to the advertisement of this well known supporter. It is the best supporter of the kind we have seen, and is well made, and offered at a reasonable price.

MALTINE.—This preparation is being widely introduced throughout Canada, and, like the Extracts of Malt, has a large and increasing sale. We intend next month to discuss the properties and actions of the various preparations of Malt and its combinations.

MEDICAL COUNCIL ELECTIONS.

The elections for the Ontario Medical Council take place on the Second Tuesday in June, 1880. Members should make it their business to see that capable and energetic men are nominated and elected. Present members seeking re-election should be judged by their record during the past five years, and all who have been derelict in their duty should be left at home. There are some good men on the Board, who, both for their experience and abilities to serve the profession well, ought to be returned; but there are others whom we should be very sorry to see re-elected. There are no local or sectarian ends to be served, and no pledges should be demanded from candidates other than that they will energetically, economically and faithfully work in the cause of higher medical education in this Province. We hope no one will be so foolish as to advocate increased territorial representation, which will merely increase expense without adding to the efficiency of the Council. Granted that the Homœopathics are represented by more members than their numbers entitle them to, the evil will only be increased by a larger territorial representation. The plea that the school men are too many is, to say the least, a silly one. None better than those actively engaged in teaching know how to advance the cause of higher education, and we are certain that they have no other interests to serve.

HIGHER MEDICAL EDUCATION IN THE UNITED STATES.—It is gratifying to notice that at last our neighbours across the line are awakening to a knowledge of the fact that their system of medical education is not what it ought to be. Harvard University, some years ago, adopted the graded system, and lengthened the period of study required for graduation in medicine. Syracuse University, the Chicago Medical College, Jefferson, Bellevue, the University of Michigan, Detroit Medical College, and one of the St. Louis Colleges have followed their good example. Doubtless all medical schools in the States will soon be compelled to do likewise. Even a three years' course is far too short, and we trust soon to see a period of study of at least four years required by all the graduating bodies in the States.

PROTECTION.—We regret to hear so often the complaint by medical men that the Ontario Medical Council does not protect *them* from quacks. It is high time that everyone should know that the Council exists to protect the public from unqualified practitioners. If it existed merely for the benefit of its members, we should advocate its abolition. Physicians can protect themselves by acquiring a thorough knowledge of medicine, and showing the public that they have it.

JOHNSTON'S FLUID BEEF.—This preparation of animal as food now so well known both in Europe and America contains the nutritive properties of beef in a concentrated form, the albuminous and extractive matter being combined. It has received the approbation of the most eminent physicians and chemists everywhere.

TORONTO GENERAL HOSPITAL.—The subscribers to the funds of the Toronto General Hospital have re-elected Mr. Walter S. Lee as their Trustee for the ensuing year.

JOURNALISTIC.—We have received No. 1, vol. i., of the *Chicago Medical Gazette*, published on the 5th and 20th of each month. Dr. E. C. Dudley, editor. Terms, \$2 a year.

CANADIAN EXTRACT OF MALT.—As will be seen by advertisement, Dr. Day, of Kingston, is manufacturing an Extract of Malt.

CHEAPEST AND BEST.—The Montreal daily *Witness* is mailed to all its subscribers in America at less than a cent a day. It is the best cent newspaper in the world, giving all the latest news by telegraph, editorials on the most important questions, a comprehensive correspondence column, a valuable department devoted to the contemporary press, home and religious reading, a weekly summary of the new books and magazines—in fact, each number is the world's history for a day. Price, including postage, \$3.00 a year. Sample copy sent free on application.—JOHN DOUGALL & SON, Publishers, Montreal.

Book Notices.

Ninety-seventh Annual Catalogue of the Medical School (Boston) of Harvard University, 1879-80.

The Physician's Visiting List for 1880. Twentieth year of its publication. Philadelphia: Lindsay & Blakiston. As usual, very good.

Some Important Topical Remedies and their use in the Treatment of Skin Diseases. By JOHN V. SHOEMAKER, A.M., M.D., Philadelphia.

Esophagismus; with remarks on the subject by J. J. Henna, M.D. Reprinted from *The Hospital Gazette*, October 18th, 1879. New York: Charles L. Birmingham & Co.

A Text Book on Physiology. By MICHAEL FOSTER, M.A., M.D., F.R.S. Third edition, Revised. London and New York: Macmillan & Co., 1879. Toronto: Willing & Williamson. Price, \$3.50, cloth; \$4.50, sheep.

This work, which is issued in advance of a cheap student's edition, to be ready shortly, will be noticed in our next issue.

An Examination of the usual signs of Dislocation of the Hip; also an Enquiry into the Proper Mode of Procedure when Dislocation of the Hip is accompanied with Fracture of the Femur. By OSCAR H. ALLIS, M.D. From the Transactions of the Medical Society of Pennsylvania for 1879.

Advice to a Wife on the Management of her Own Health, etc.

Advice to a Mother on the Management of her Children, etc. By PYE HENRY CHAVASSE. Toronto: Willing and Williamson.

These little books are addressed to the wives and mothers of England. They contain much information and many important truths, which are brought to the notice of the young wife and mother in a hortatory manner which compels attention. The popular character of the books is well attested by the fact that one has

reached its thirteenth, and the other its twelfth edition, in the short space of three years. The subject matter is frequently interspersed with Shakespearean and other poetical quotations, aptly introduced.

Advice to a Wife begins with a long introductory chapter relating to the dress, exercise, sleep and habits of the wife. The remainder of the work is divided into four parts, treating respectively of Menstruation, Pregnancy, Labour and Suckling. Many useful hints are given that a wife would do well to follow. The language is plain, being freed from technical terms. In all difficult or doubtful cases a medical man's advice is at once to be obtained.

Advice to a Mother is divided into three parts:—1. Infancy; 2. Childhood; 3. Boyhood and Girlhood. The advice is put into the colloquial form. The author is evidently of the opinion that "Cleanliness is next to Godliness;" and his directions with regard to the ablutions are detailed at some length. Four things are considered as essentially necessary for the well-doing of the infant—plenty of water, milk, air and sleep. In "Pye Chavasse's Fresh Air Treatment of Scarlet Fever," we think that the author claims too much for himself. In medical and surgical emergencies, the directions are concise: 1. Send for a medical man; 2. Do what he tells you.

On the Education of Children one remark we deem well worthy of quotation—"You ought, in the education of your daughters, to remember that they, in a few years, will be the wives and the mothers of England," and therefore some of the duties they will have to perform, and some of the burdens they will have to bear, should thus early be inculcated.

The Skin and its Troubles. New York: D. Appleton & Co., 1879. Toronto: Hart & Rawlinson.

This little brochure of some ninety sedecimo pages is presumably from the pen of the late Dr. Tilbury Fox, and constitutes No. 7 in the English series of Health Primers. The introductory chapter is devoted to setting forth the importance of the skin as an organ of many functions in the animal economy, and pointing

out the baneful effects on the general system of uncleanness and other deleterious influences affecting this widespread tissue. We think it might have been advantageously pointed out that the mucous membranes are but modified continuations of this structure, and amenable to the same general principles and laws. Chapters II. and III. are devoted to short disquisitions upon the structure and functions of the skin respectively, and Chapter IV. points out their "practical applications to the conditions of daily life." It is well that the public should be fully impressed with the creed that not only is cleanliness "next to godliness," but that it is, as under the old Mosaic dispensation, an essential part thereof. A valuable chapter follows, numbered V., dealing with "skin troubles," from poisonous clothing, the injudicious use of domestic remedies (notably arnica), and cosmetics. The knowledge herein contained cannot be too widely diffused for the public good. The hair and its ordinary management form the subject of the last two chapters, which will serve to vulgarise a good deal of much-needed information on this topic. We cannot, however, agree in the view that the hair, under ordinary circumstances, has any need of artificial lubrication, and we are more in favour of the brush and comb than of frequent ablutions with water as a detergent for that ornament and protection of the head. The insertion of formulæ and the recommendation of remedies we do not think commendable in this chapter, and we must also take exception to the following passage on page 91: "For further details we must refer the reader to special treatises on ringworm and skin diseases." The only referee for the lay reader—to whom alone the remark is applicable—to consult should be the family physician.

Dr. W. H. Pike, of Oxford University, has been appointed to the Chair of Chemistry in University College, Toronto, vice Professor Croft, resigned.

Injection of Lime-water as a solvent for blood clots in the bladder, is recommended by Dr. J. H. Ledlie in the *St. Louis Clinical Record*.

Meetings of Medical Societies.

TORONTO MEDICAL SOCIETY.

The Society met Nov. 6th; the President, Dr. Workman, in the chair. Dr. Graham presented heart, kidneys, and portion of liver taken from a patient who died in the General Hospital. A. C., female, aged 53, married, 9 children, family history good, healthy until last three years. Lately has been troubled with palpitation, shortness of breath, and swelling of the legs. Admitted Oct. 20th. Has general dropsy, resp. 32, pulse 140-160, weak, urine scanty and high-coloured, containing urates and phosphates but no albumen, heart pushed to left side, blowing systolic murmur sometimes heard at apex. Patient too weak for thorough examination. Died Nov. 1st, P.M. Nov. 2nd. Fluid found in right pleura, lower part of right lung carnified, heart enlarged—weighing 12oz., left auricle dilated—capacity 4oz., auriculo-ventricular opening contracted, hole found in one of the mitral valves, liver enlarged, spleen enlarged and congested, kidneys granular, contracted.

Dr. Oldright presented a very large cyst-wall removed from a boy aged 4. It had been situated over the scapula.

Also a patient, a boy aged 12, first seen 8½ years ago. He then had an attack of acute bronchitis. Pleural complications arose and empyema resulted; was tapped in June '71, about 12oz. of pus taken away. The cavity filled again in a few days; was tapped a second time in August, and a third time a few weeks after. The cavity was regularly washed out after the third tapping, every day for nine months, with carbolyzed water, on the syphon principle, by means of a rubber tube, which had been pushed into cavity through the canula and retained there, being rolled up in a coil after each washing, and fastened to side of chest by adhesive plaster. The patient was examined by the members present, and the lung found to have recovered its normal condition. Measurements showed the right side of chest to be one half inch larger than the left, and the expansion on forced inspiration was equal on the two sides. While washing

the pleura the cavity had gradually become smaller, and finally the external wound healed permanently.

Dr. McFarlane reported two cases of poisoning by seeds of *datura stramonium*. The symptoms were delirium, jactitation, and dilatation of the pupils. Cause unknown at the time, but it was afterwards discovered that the children had been eating stramonium seeds found in the garden. Treatment: Emetics and small doses of opium. The patients recovered.

Dr. Graham reported a case of recto-vesical fistula. A. B., male, aged 43, first seen June '79. Had been ill since September '78 from diarrhæa, and had lost 50lbs. in weight. Late-ly noticed that he frequently passed gas from the penis. Urine: sp. gr. 1015, contained albumen, pus, mucus, and urates. Seen again Oct. 28th. The patient first noticed in July fecal matter passing through the urethra. The bladder is at times distended with gas, which he is able to pass at will. Still has diarrhæa; is going into hospital for further examination and treatment.

Dr. Graham then read a paper on *Morphœa*, in which he gave a history of a case at present under his care, with some general remarks on the subject.

At a meeting of the Society, Nov. 20th, '79, Dr. Zimmerman presented pharynx, larynx, trachea, and lungs, taken from a patient who died from diphtheria. The specimen showed a diphtheritic membrane extending from pharynx through larynx, trachea, and into smaller bronchial tubes.

Dr. Wilson gave history of an obscure case in practice, and then read a paper on "Anæmia," in which he described Simple Anæmia, Pernicious Anæmia, and Chlorosis. A discussion followed.

Dr. Riddell then read a paper on "Small Pox in Ontario," being a continuation of a paper read before the Society June 26th, 1879.

Meeting of Society Dec. 4th.

Dr. Zimmerman presented kidneys and bladder. The right kidney was scrofulous, containing numerous sacculi filled with pus and cheesy matter—the left showed commencing

inflammation. There were the usual appearances of inflammation of the bladder.

Dr. Temple reported a case in practice. Mrs. A., aged 45, after slight exposure to cold two years ago, was suddenly seized with very severe pain in the region of the right kidney, followed in a few hours by a discharge of pus with a little blood. The pain lasted two or three days, and about 5oz. or 6oz. of pus was passed during this time. These attacks recurred every three or four months. During the intervals between the paroxysms there was no pain, no irritability of bladder, the urine was clear, but at times very fetid. There was, however, always tenderness over the kidney. The general appearance of the patient was healthy. Diagnosis, Abscess of Kidney.

Dr. Zimmerman thought it might be due to calculus, causing pyelitis; the pus being retained for a time, and finally forcing its way past the calculus.

Dr. Cameron thought the symptoms pointed to tuberculous kidney.

Dr. Graham presented a heart showing dilatation. It weighed 24oz., taken from male aged 40. The pericardium contained some fluid, and the lungs numerous apoplectic clots. The dilatation of the heart was probably due to the atheromatous condition of the arteries.

Dr. Fulton presented a polypoid fibroma, about as large as a cricket ball, which had been attached by a pedicle about one inch in diameter to the internal surface of the bladder, on the anterior portion. It had caused retention of urine, attended with great pain and straining. Ulceration occurred in upper portion, eating through the wall of the bladder. Death ensued from exhaustion. The patient was a child aged 8 years.

The President read a translation of an interesting case in Buenos Ayres of lymphadenoma removed from left side of neck in a boy aged 10.

Dr. Temple then read a paper on "The Use of the Long Forceps," in which he discussed the use of the instrument under various circumstances as compared with its alternatives. He analysed the report of Dr. Johnston, Master of the Rotunda from 1868 to 1875, given before the Obstetric Society of Dublin in 1878, showing the frequency with which he had used the

forceps during his term (1 in 10½ cases), including 169 cases in which the os was not fully dilated, and head was at or above the brim. Dr. Temple showed the good results from the use of the instrument in his practice, both to mothers and children; but thought that caution and care should be exercised in undertaking "the high operation," especially by unskilled obstetricians. He considered, however, that in properly chosen cases it was preferable to any of its alternatives.

The President, Drs. Fulton, Cameron, A. H. Wright and several other members joined in a discussion on the subject, which was closed by a reply from Dr. Temple.

At a meeting Dec. 18th, Dr. Oldright showed some specimens which had been kept in the new German preserving fluid—the lungs of a sheep for four weeks, and a piece of beef six weeks. They were in a good state of preservation, retaining their colour, and were not hardened. (The composition of the fluid is given in another column of this issue.)

Dr. Grasett presented spinal cord and rectum taken from a patient who had died in the Hospital. Unable to get a complete history, but found that the patient, after an exposure to wet and cold a few months ago, was suddenly seized with paraplegia, with its ordinary symptoms. Tenderness existed at one point in spine. Diagnosis, Spinal Meningitis with perhaps Myelitis. The cord showed thickening of membranes and substance at point where tenderness had existed during life. The rectum was much reduced in size throughout its whole extent; no cause discovered.

Dr. White reported a case in practice—A boy aged 16, very weak and anæmic, subject to self-abuse, had ankylosis of left hip-joint, contraction of the adductor muscles, drawing one thigh across the other. Treatment: cutting the tendons of adductor longus, semi-membranosus, semitendinosus, and finally that of the biceps, and keeping the patient in a case for a time. This was done last spring. The deformity was removed, and the general health improved for a time; but he is failing again, and not likely to live many months.

Dr. Grasett reported a case somewhat similar, but occurring in a vigorous, healthy boy. The

lower limbs were crossed by the contraction of the adductors, and the tendons having been cut, the boy is improving rapidly, and is now in nearly his normal healthy condition. The boy was a masturbator, but the doctor couldn't say whether this was the cause or not.

Dr. C. K. Clark, of the Toronto Asylum, then read a paper on Epilepsy, treating principally of the disease as observed by him among lunatics. He gave histories of a number of interesting cases which had come under his own observation, and described symptoms, treatment, and post-mortem appearances.

Miscellaneous.

CANADIANS IN ENGLAND.—T. H. Ashby, M.B., Toronto; F. S. Greenwood, M.D., McGill, and J. W. Wright, M.D., McGill, have been admitted Licentiates of the Royal College of Physicians of London.

HÆMORRHOIDS—METHOD OF CONTROLLING HÆMORRHAGE.—Take a cone-shaped piece of sponge and make it hollow; then pass a thread from the inside through the side of the sponge, over the apex of the cone, and return it to the cavity in the sponge. It is then to be slightly moistened, compressed, and pushed up as high as possible in the rectum on the tip of the finger. Pieces of lint are then to be carried in until the cavity in the sponge is filled. As soon as filled, traction is to be made on the strings, when the sponge will spread out and press against the side of the rectum. In this way flow of blood upwards is prevented. Then place a large piece of oiled lint over the arms and cleft of the nates, pack the cleft with cotton, and secure over it by a T-bandage a compress. The sponge may be left thirty-six or forty-eight hours.—*New York Medical Record.*

Births, Marriages, and Deaths.

MARRIED.

At Oshawa, on Nov. 13th, J. C. Ray, M. D., of Sunderland, to Ellen, fourth daughter of John Hyland, Esq., of Oshawa.

DIED.

At Toronto, on Nov. 26th, Dr. D. J. Pollock.

At Collingwood, on Nov. 28th, Dr. Moberley, aged 39.

At Flint, Michigan, on Nov. 23rd, Joseph C. Small, brother of Dr. Small, of Toronto.

On November 24th, at 174 Simcoe Street, Toronto, Captain Robert Henry Russell, father of J. B. Russell, M.D.

THE Canadian Journal of Medical Science.

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U. OGDEN, M.D.,
EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London,
171 Church Street Toronto, Corresponding Editor

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Selections: Medicine.

VERATRUM VIRIDE AND ITS USES.

BY DR. EDWARD H. SHOLL,
Of Gainesville, Ala.

This article is intended to formulate a comprehensive and consecutive use of this drug for twenty years.

DISEASES OF THE AIR PASSAGES

will be first noticed. Here the law that governs its use, and from which I record no safe deviation, is, that it must be limited in its application in bronchitis and pneumonia, more particularly in the latter, to the first ninety-six hours of the attack, unless taken prior to the time, when its safe use may be indefinitely continued. It is out of place after the lung has become consolidated by inflammatory product, or its vesicular substance condensed by mucus or other product.

If this law is carefully followed I avouch its safe use, as I have never found but one case where it gave any cause for any unusual care, and in this case the depression was readily relieved.

Its action is that of a depurant, and an equalizer of the circulation, eliminating by the kidney and mucous surface of the bowel, and co-ordinating arterial action, so as to relieve either visceral or capillary congestion, and bring about an equilibrium.

In acute laryngitis, acute bronchitis and pneumonia, the best method of administration is to give the full dose, according to age, every two hours, till three doses are given, after that prolonging the interval to three hours, and continue thus, with instruction to reduce dose and

prolong interval if nausea or vomiting ensues, and as the patient improves. Unless otherwise indicated, I prefer giving it alone, in a little water, so as to complicate its action as little as possible, using a mercurial or other purgative, if required, and an opiate if violence of cough and pleuritic pain at the outset require relief. I never give quinine within three hours before or after administering it, not fancying its combined action, and seldom or never finding any imperative demand for so doing, for in competitive tests, often repeated, I find here, in a region of country malarial from July to October, and impressing its type in the modification of many forms of disease, and where presumably quinine would be most valuable, particularly in pneumonia, that it bears so little value comparable to the veratrum, that I seldom resort to it, and when I do, have generally had cause to regret it. The largest dose for an adult, at one time, given as above directed, need seldom exceed four drops. For an infant one year old I give one-fourth of a drop as a dose; at one month one thirty-second of a drop. I would here say that, if anything, I prescribe it more frequently in infants and children, their ready susceptibility to all catarrhal affections demanding its more constant use for relief of their wants. In those diseases of people advanced in life, I use it steadily, but in smaller doses, ordinarily giving at the same time a teaspoonful of a mixture of equal parts of syrup of lactophosphate of lime and sherry wine, to stay waste and gently stimulate. With the infant I use, in addition, in an aggravated case, mustard to front and rear of chest, repeated as needed, with hot foot-baths, and if it be of the croupous variety, small blisters behind the ears.

In the intercurrent pneumonia of typhoid fever it is not safe to use it.

Again, it cannot be safely used to any extent in cases of pneumonia with the negro; on the contrary, in a large and continuous practice among them for more than twenty-three years, I have learned to limit my remedies in pneumonia, with them, to whisky, Dover's powder, ammonia and quinine, useful in the order named, a common prescription being two table-spoonsful of whisky to an adult every two hours, sometimes increasing it, treating many grave cases, as pneumonia is by far the most fatal disease of adult life to them, with whisky and Dover's powder and good nourishment alone. Experience has taught me that in the administration of quinine in pneumonia, it is best to give all that is to be given during the twenty-four hours, from 15 to 20 grains in the adult, at the hour of lowest temperature, which is usually from 2 to 6 A. M., all at one dose.

I close the reference under this head with noting a variety of pneumonia, that of the steady, square drinker, who carries regularly his pint to a quart of whisky daily. This class of pneumonias here, however, comes exclusively under the domain of the undertaker, as I desire here to testify that the first case of recovery, by any method of treatment known to me, has yet to come to my notice. In my practice they have been in every instance fatal.

OPIUM POISONING, ACUTE AND CHRONIC.

Years ago, through the columns of the *Reporter*, I called attention to its value in acute opium poisoning, administered in ten-drop doses of the fluid extract or tincture, at intervals of ten minutes, in the adult. Further experience has convinced me of its value, as being so great that I have rarely believed it necessary to resort to other means.

A much wider and more benign field of usefulness and great good opens up in its pronounced virtue as an efficient and safe antidote in the chronic opium habit.

The evil has grown to enormous dimensions, marring the peace and happiness of many a household. Some of its slaves would willingly break their fetters, and I offer this to the profession of the world at large, and ask that they test this safe and simple method with those

who desire to be relieved, protracting its use, as Dr. Giles did, sufficiently long to give it a valid test.

CHRONIC VALVULAR DISEASE OF THE HEART.

In aortic and mitral regurgitation, more particularly in the latter, with its distressing cardiac dyspnoea, and other attendant troubles, more relief will be found in the careful administration of equal parts of the fluid extracts of veratrum and digitalis, than in any remedies that can be administered. The doses must be tentatively and steadily given to the extreme limit that can be borne. Ordinarily eight drops of the mixture every three hours will suffice to meet the most urgent indications.

PUERPERAL DISEASES.

In the *Reporter* of July 20th, 1878, I entered into detail on the subject of puerperal peritonitis, where the veratrum was certainly the controlling agent in the successful result of treatment. Several times, more recently in the *Reporter* of April 12, 1879, I have called attention to its efficient action in puerperal convulsions in connection with other treatment, and as in severe cases; one I have recorded in a colored woman, where bleeding was inadmissible, there being present a double pneumonia; it, with morphine, brought the case to a happy issue, the woman not becoming conscious till the fifth day; its value here was most admirably developed.

EPILEPSY.

I have record of two cases, brought to a successful issue, in one of which restoration to health was complete, in this regard, the remainder of her life. In the other case there has been no paroxysm since 1867. These cases were treated with five drops of fluid extract of veratrum viride, with two grains of sulphate of zinc, three times daily. In one stage of one case the scutellarin was added. My experience here is too limited to be anything but suggestive. It has also been highly recommended in the most violent forms of chorea. Fortunately, I have no personal experience in this disease.

WOUNDS OF THE ABDOMEN.

When the cavity of the abdomen has been entered with a sharp cutting instrument, with-

out any serious lesion of the viscera, but with a severe peritonitis, and the intensest grade of fever possible following the injury, I have pushed the conjoined treatment of veratrum and morphine as steadily, rapidly and fully as could be borne, with the kindest and happiest results, giving here at times the veratrum in ten-drop doses, to combat as rapidly as practicable the violent inflammation. Reasoning from analogy, but not from experience, it is to be supposed that in the judicious use of the veratrum the ovariologist would find, at times, a valuable addition to his resources.

VERTIGO AND APOPLEXY.

In plethoric vertigo it has been my custom for years past to use it freely. Ordering perfect quiet, in the most comfortable position to the sufferer, ten drops are given at once. The same or a smaller dose is persistently given every three hours until relief is afforded, which is usually the case as soon as the least characteristic effects of the medicine is produced. It is then cautiously continued, due attention being paid to the secretions. In apoplexy with hemiplegia, I have used it freely during the last four years, for as many hours after the attack as were necessary to relieve the unsteadiness and tension of the pulse, with marked and desired results. With this résumé of its action and profitable uses, it is commended to the attention and practical scrutiny of the profession.—*Medical and Surgical Reporter*.

St. Thomas's Hospital men feel, we learn, no small pride that Mr. R. P. Smith, at present the house-physician of Dr. Ord, has carried off the gold medal in Medicine at the second M.B. examination at the University of London, inasmuch as he is not the first St. Thomas's man who has been first in medicine in several successive years. Such continuous successes can hardly be a matter of mere luck. It probably points to the admirable training in medicine for which Dr. Murchison, Dr. Bristowe, and Dr. Ord have rendered the medical wards of St. Thomas's Hospital widely and justly celebrated. Clinical teaching as a systematic art, whether in medicine or surgery, is often so imperfectly studied or so largely neglected in our hospital wards, that it is a pleasure to be able to point to a systematic and careful instruction reaping its due reward in public honours.—*Br. Med. Journal*.

MORBID IMPULSES.

BY HORATIO B. BIGELOW, M.D.,
Of Washington, D.C.

In an article written for the *Cincinnati Medical News*, in May, 1874, I offered the following explanation of the morbid impulse:—

"When the impulse becomes dominant, asserting itself despite the will, then it is that the person is pronounced insane. The mere existence of the *fixed idea*, so long as it be controlled by volition, is in no wise an abnormality. When the hemispherical cells cease to react upon each other harmoniously, when an idea prolongs its tension so as to 'tyrannize over the understanding, and become an absorbing entity,' illusions and delusions result. A man in this condition of mental erethism, acting under a delusion, would not be amenable to law, only in so far as his confinement in a proper asylum would be demanded. The *modus operandi* by which an idea becomes excited and active is this: The necessary external stimulus applied to the sensory ganglia is expressed outwardly as pleasure or disgust, while the residua furnish to the well-balanced mind the stimulus which was necessary to excite the particular idea in one of the numerous cortical cells. Just what stimulus was needed, and just what idea would obtain from its application are the lessons stamped on the mental growth by the experience of generations. The nervous action may become weakened by the vicious transmission of heredity, or the integrity of the nervous vitality of the centres may be upset by injurious practices."

A more precise observation has forced the belief upon me that a morbid impulse, which is always dominant and may not be controlled by the will, never originates *de novo*, but is the result of previous family instability. The underlying predisposition to the various conditions of mental erethism may always be found in a transmitted tendency of heredity, or, in women, in uterine disorders and misplacements. The hypochondria incident to acute dyspepsia is often the offspring of eccentricity (so-called) in either the father or the mother, and may, in turn, become the parent of a more pronounced form of mental unsoundness in the next generation. Each one, in his life's history, may

remember the existence of a transitory impulse, which, had it been realized outwardly in action, would have occasioned shame and disgrace. But such occasions only become matters of legitimate legal inquiry when they are offered in extenuation of crime. An influential consideration which must always be a prominent factor in the ultimate diagnosis is the social position of the patient. The commission of a criminal act by a person whose previous record has been untarnished, who has never been vicious or immoral, whose education has been elevating and whose associations such as tend to develop and strengthen the better sentiments of human nature, is much more apt to be caused by disease, than would be a similar realized impulse in one whose constant acquaintance with crime had lowered the moral tone and brought into prominence the brutal passions.

The law differentiates in the two instances with equity and good sense, consigning the one to an insane asylum and the other to prison. Morbid introspection, or the constant consideration of an impulse to commit an offence, will sometimes become so overmastering that the victim, recognizing the imminent danger to himself and others in a weakened will power, will request to be put under surveillance. Such a case, and of great interest, is fully described by M. Dagonet, in the *Journal de Médecine Mentale*, 1869, p. 317. It is also worthy of note that all the cases cited in the literature of mental disease as instances of morbid impulse have occurred in the middle or higher grades of society. The advance of civilization, rather than its absence or retardation, exerts a marked influence in their development. The greed of gain, the fluctuations of the money market, the exciting condiments of sumptuous tables, the sensual and demoralizing literature and art which delight the æsthetic young people of the period, are the necessary evils of our day and generation. Ignorance will foster superstition, debase the intellect and weaken the mental growth, but it will not disrupt the harmonious intercommunication of perception and will. Very rarely, if ever, has it been the case that a dominant impulse has obtained among the

ignorant. When the existence of this condition of mental erethism is urged in the extenuation of crime, it should be the duty of the physician to inquire minutely into the inherited tendencies of the prisoner, to seek for parental eccentricities, to weigh well the previous mental states, the social position and early training; and should it be a woman, to examine carefully for uterine flexions. Many women have been confined in asylums for acute and chronic insanity, who have recovered almost immediately upon the correction of a mal-placed uterus. Disorders of the digestive apparatus may be the exciting cause in a person so predisposed by reason of a transmitted taint.

The relation of the morbid impulse to crime is an intimate one. The abuse of the plea in criminal courts should not blind our eyes to its frequent existence. Just when the court may make a discrimination, and differentiate between a crime committed with a calm and sane deliberation, and others committed on the impulse of the moment, or from the predominating assertion of a morbid impulse, is a matter of frequent and interesting medico-legal inquiry. The theory of mania transitoria, urged with so much ability and success in the Reynolds and McFarlane trials, could not bear the test of intellectual inquiry. While such states of mental unsoundness are incident to epilepsy and cerebral congestion, giving rise to transitory mania, no essential and primary disease of this kind is known in neurology. Yet a crime committed by a person who himself was a victim to epilepsy, or whose antecedents had been epileptic, might be condoned with propriety upon such a plea. The heat of passion occasioned by wrongs, imaginary or actual, does occasion cerebral hyperæmia, but such a plea could not be accepted in equity, by any court, as palliative of an offence committed. The immediate antecedent and subsequent mental condition of the prisoner, in relation to the crime, had been normal. He had no inherited disease, and the passion was self-caused and might have been controlled. No man may take the law into his own hands. To urge the plea of mania transitoria in such a case, because a condition of cerebral hyperæmia did obtain, is to stultify scientific medi-

cine. The desire of redress for wrongs inflicted is natural and general. The Christian fortitude to bear our ills with serenity—to suffer long and be kind—is rare. The constant contemplation of our troubles may lead to morbid mental states; but, except in rare instances, the criminal impulse may always be controlled by the will; and even where the will has become weakened we are always conscious of its approach, and our relations to society then demand that we should seek sanitary intervention. A morbid impulse beyond the control of the will never manifests itself without previous warning. A criminal act perpetrated under these conditions is to be taken cognizance of by the law, only in so far as the patient is criminal in not surrounding himself with necessary protection against the outburst. In advanced stages, even for such negligence, a man may not be accountable, as a will sufficiently weakened to fail in controlling any manifestation presupposes that it is equally weak in all things, and is not, therefore, capable of realizing its own insufficiency. Such a painful condition is true insanity, and should be treated as such.—*Med. and Surg. Reporter.*

TWO CASES OF PARADOXICAL PULSE.—Meixner (*Prager Viertel Jahrsch.*, 1879) a labourer, aged twenty-seven, was affected with left pleurisy, pericardial effusion with double pulmonary infiltration, presenting great frequency of the pulse without elevation of temperature. At first in the form of attacks (142 per minute, later persistent (136–148 per minute). Besides, during inspiration, the radial pulse became not only enfeebled, but also entirely disappeared. The autopsy confirmed what had been diagnosticated during life: that the suspension of the radial pulse during inspiration should be attributed to a pleuritic exudation, while the acceleration of the pulse was due to the compression of the left pneumogastric by a caseous lymphatic gland with which it was confounded; the nerve being also flattened and thinned. In a second patient the paradoxical pulse was produced by left, serous, pleuritic exudation; after paracentesis the paradoxical pulse disappeared to return and disappear again with the return and redisappearance of the pleural effusion; so long as the effusion existed the left radial pulse was also weaker than the right.—*Lyon Médical.*

CASE OF CONGENITAL ECTOPIA OF ABDOMINAL ORGANS.

BY T. W. MILLS, M.A., M.D.,
Resident Physician Hamilton City Hospital.

About ten days prior to delivery, M. W., aged 19, an unmarried woman, presented herself for admission, stating that she had walked between ten and fifteen miles that day from the country in order to reach some lying-in institution. Her appearance suggested hardships, though she seemed fairly healthy. According to her own account, her gestation had been accompanied by but few of the ills incident to this state; she did, however, complain of being unable to do hard work for some time past on account of feelings of weakness, accompanied by tremulousness, whenever she undertook to perform the same. Owing to this incapacity for the ordinary duties of a household domestic, and to being obliged frequently to change her place of service, she had evidently for some time past had rather a hard lot. She stated that she had never, during her pregnancy, received any injury by a fall or otherwise. There was a suspicion of syphilis; but beyond this the woman seemed healthy. The patient believed herself to have arrived at full term. On the 25th of December she complained of pains that indicated the commencement of labour; these continued during the night; the head presented in the first position, and about nine a.m. on the 26th, the course of the labour having been natural in every respect, the head passed the vulva, when the child was noticed to gasp once or twice rather faintly; after the entire body was expelled, the heart continued to beat for a few seconds, and the infant gasped still more faintly once or twice; but there was no cry or other sound, or any nearer approach to a respiration. The placenta was duly expelled, presented nothing appreciably abnormal, and the woman recovered well. On being asked if she could account herself for the small size of the infant, she replied that she did not know the cause, except it were “fretting.”

Externally, the appearances were perfectly natural. The child was a well-formed male, and presented no structural evidences of imma-

turity, measuring 17 inches in length, but weighing only 3 lbs. 10 oz. To the above general statement there is one remarkable exception—both hands are bent upon the arm so that the carpus forms almost a right angle with the radius, the palm looking directly inwards and suggesting the common deformity—club-foot. Instead of the thumb proper, there is a rudimentary digit attached at about the site of the normal thumb by a very small portion of integument. Exactly the same condition obtains on each side. The *sectio cadaveris* revealed the following peculiar displacements, etc.: Right lung unexpanded and pressed back against the spinal column by the small intestines, which, with the exception of a part of the duodenum, are found in the thorax. This displacement is evidently due to a semilunar opening, or rather deficiency in the posterior portion of the diaphragm on the right side, large enough to admit readily two fingers side by side. The margin which really constitutes the posterior boundary of the diaphragm on this side is thick, smooth, rounded, and fleshy. Lying upon the upper surface of the diaphragm, and so preventing the descent of the intestines, is found a portion of the liver, constituting about one-fourth of the whole organ, and so constricted that it is almost entirely severed from the rest of the organ; it forms, in fact, a lobe by itself. This, with moderate pressure, can be pressed through the opening, when the intestines naturally follow it. The left lung is partially distended, and presents numerous sub-plural ecchymoses. The *ductus venosus*, *ductus arteriosus*, and *foramen ovale* are present and patulous; in fact, there is nothing in the anatomy of the fetus to attract especial attention, except the extensive displacements, etc., described.

The cause of death in this instance, or more properly the inability to live—to adapt to extra-uterine conditions of life—is sufficiently obvious, inasmuch as we can scarcely suppose that respiration could be initiated and maintained by a single lung, and one-half of the diaphragm, when more especially these organs are as yet wholly *unpractised* in the acts they have to perform. Herniæ of the diaphragm have been divided into *true* and *false*; the former having

a true peritoneal sac or covering, the latter none; it is manifest, however, that the term *ectopia*, or displacement, would be a much more accurate and fitting one for the latter. The present case followed the general rules in the following respects:—

(1) Occurrence of opening in the *muscular* part of the diaphragm.

(2) The intestines pass more frequently by the *posterior* part of the diaphragm.

(3) Adhesions are rare.

(4) The opening is rounded.

The case *deviates* from the following rules:—

(1) The opening is most frequently on the *left* side.

(2) The *small* intestines pass more rarely.

(3) Left side of liver is most frequently displaced.

DOUBLE PNEUMONIA AND ABORTION.

BY L. A. RUTHERFORD, M.D., MACON, GA.

On the 11th of March I was called to see, with another physician, a white woman, aged thirty-three; skin very hot, both cheeks flushed, eyes suffused, respiration about 23, pulse 120. Complained of severe pain in both sides of the chest. Cough constantly. Both sides dull on percussion, right side more involved. Respiratory murmur at upper part of both lungs very loud, accompanied by some fine crepitation. Tongue very broad and flat, deeply furrowed in centre, base covered with a dense, dirty, brownish fur, lips red, breath very offensive. Diagnosed double pneumonia. Ordered a large mush poultice, to cover both sides of the thorax, to be as hot as the patient could endure it. Acetate of ammonia, in one drachm doses, to be given every three hours. Five grains of dextro-quinine every six hours. Eleven a.m., next day pulse was 120. Right lung more involved, pain more acute, respiration more rapid, mouth dry, tongue more brown, fissure deeper, heat of skin 103½. Ordered poultice to be continued, and increased my dose of dextro-quinine to twelve grains, to be given at once, and repeated in four hours. At nine p.m. saw the patient; complained of diarrhœa. Three doses of dextro-

quinine were taken, and the symptoms were much improved. For the diarrhœa a few drops of Monsell's solution of iron were ordered every hour. Nourishment principally consisting of milk. Dextro-quinine was given only twice during the night. On the morning of the 12th symptoms much improved, though the dullness was as great, but heat and restlessness abated somewhat; diarrhœa under control. During the next two days the acetate of ammonia was continued in one-drachm doses, every four hours, five grains of dextro-quinine to be given three times a day.

On the 15th I was called in haste to her. Found pulse 135, respiration very rapid, skin very hot; two slight convulsions came on while I was with her. Ordered beef tea and milk to be given frequently, in small quantities. Tincture of veratrum was given in small doses every hour. Four o'clock I saw her again; was told that labor pains were on her. She was four months advanced. Made a vaginal examination, and found the os dilated, perineum soft and yielding, but little hæmorrhage, and before I left the house the fœtus was expelled, minus the placenta. The shock this abortion inflicted on the system was fearful; she became semi-comatose, pulse went up to 150, small and thready, breathing diaphragmatic. Several convulsions then came on. Hard ones were on her in twenty minutes or more. Face was pale, skin of body intensely hot, while the extremities were cold. Something had to be done forthwith, and as I put about as much faith in dextro-quinine as most men do in a good brake on an express train, I poured out what I thought to be a good twenty-grain dose of that drug, which was dissolved in a solution of tartaric acid, and poured it down her throat. This was repeated in an hour. It was certainly marvellous to witness the effects produced. In two hours the pulse was reduced forty beats, and the skin much cooler. Though the convulsions did not entirely subside in that time, they were very much lessened. In three hours more I gave her ten grains again; by night she recovered her senses. Next day I found, to my surprise, that there was very much less solidness of lung than at any other time since

I first saw her. I removed the placenta with a hook this day; but very little hæmorrhage occurred at any time. The dextro-quinine was now combined with Squibb's tincture of iron, five grains to thirty drops every three hours. From this time on the convalescence went on uninterruptedly. I make no comments on this case, but would ask the attention of the profession to the line of treatment followed, which I believe will be found a successful one in cases, both of double pneumonia, pleuropneumonia, intermittent fever, and allied diseases.—*Med. and Surg. Reporter.*

THE TREATMENT OF DIPHTHERIA.

BY THOMAS GURNETT, M.D

Since I have held the position of physician to the City Dispensary, I have had considerably more than one thousand cases of disease of the throat under my care, many of which, both in public and private practice, have been cases of diphtheria. About this, by far the most serious disease of the throat, we have much to learn. The stiffness in the neck, the disturbance of the circulation, the rapid rise of temperature before any affection of the throat is observed, all point to its being a blood poison calling for prompt and decisive treatment.

The two questions that arise when called to a case of diphtheria, as, indeed, in all diseases, are:—How does the disease tend to kill the patient? and, How does Nature endeavour to rid herself of the disease?

Diphtheria tends to kill by suffocation and by its poison exhausting the vital energy. Suffocation may be either accidental, or as a natural result of the throat affection, accidental if, when the membrane is thrown off, it becomes lodged in the larynx; natural, if the swelling inside the throat shuts off the supply of air to the lungs. Nature will attain the mastery over her enemy if the strength be kept up and the deposits arrested. With these points to guide us, we know that the arrest of the disease and nutritious support are our great aim. To succeed in this, I have adopted a respirator made of the ordinary shape and size, the front being minutely perforated. Inside of the respirator I have two or three perforated plates inserted,

between which I place common tow (not cotton-wool); I then drop on each of the layers of tow ten to twenty drops of a solution of carbolic acid, creasote, and glycerine. Should the patient tire of these, I use turpentine or iodine. I place the respirator over the mouth, and keep it continually applied. My next idea is to provide the patient with warm moist air. To do this I have two kettles of water kept boiling on the fire; attached to the spouts of the kettles I have an elastic tube of an inch calibre, at the end of which is a spray-like nozzle, which I put immediately under the mouth of the patient. By this means I get my disinfectant remedies carried moist to the throat. As a sedative to the pain I know nothing so comfortable to the patient. Previous to this I take care to give an active purge, which usually removes the offensive stools of effete, poisonous matter. Internally I give aconite in frequent small doses—two to four minims of the tincture; at the same time freely supporting the strength with milk, cream, and eggs, with or without brandy, and beef tea *ad libitum*. As a drink, I recommend patients to take as much chlorate of potash in solution as they can without vomiting. I have found chlorate of potash highly beneficial in all cases of a low typhoid character. If this is objected to, I advise the juice of lemon to be taken—by many thought to be a specific for diphtheria. Should the system be very weak, I prescribe belladonna instead of aconite; but I find better results from the latter. As soon as the urgent symptoms have subsided I order strychnia, with or without nitro-hydrochloric acid—this not only being the best tonic, but also preventing the paralysis which so often follows diphtheria. I have found this treatment to be highly beneficial, but, knowing the tendency there is to rheumatism after this terrible disease, I never forget our friend the bicarbonate of potash.—*London Lancet*.

FOR OPIUM POISONING.—Several cases of opium poisoning are reported as successfully treated by fluid extract of Java Coffee, given hypodermically in doses of from 15-30 minims. Recovery was quite rapid. No abscess followed if the solution was used warm.

TROPHIC NERVES.

The subject of trophic nerves and trophic nerve-centres appears to be as perplexing as ever, and nothing could well be more remarkable in its way than the diversity of results obtained by investigators in this region of physiology. It may be remembered that a few months ago we recorded (May 10, page 510) an interesting discussion that has recently been going on in Germany upon the effects of section of the pneumo-gastric nerves on the nutrition of the heart and lungs. The outcome of that discussion appeared to be in favour of Professor Eichhorst's view that the vagi contain trophic nerves to the heart, if not to the lungs, as has been so frequently contended. Meanwhile, this question of trophic nerves has been reopened in the classical region of the fifth cranial nerve, and we are reminded of the many discussions upon "traumatic" vs. "trophic" keratitis by similar investigations upon inflammation of the tympanum. It is now nearly two years since Gellé, of Paris, announced that injury to the nucleus of the trigeminus in the medulla oblongata of the dog leads to suppuration within the middle ear of the corresponding side, as well as to affection of the eye and nose. This experiment has recently been repeated by Professor Hagen, with the modification that the trunk of the fifth nerve of one side was cut within the skull by a carefully planned incision, made without opening the head (*Archiv. f. Exper. Path. und. Pharm.*, xi., 1 and 2, page 39). Thirteen animals were operated on, and Professor Hagen's conclusion is that the inflammation which undoubtedly occurs in a small number of cases within the tympanum supports the view that keratitis, after section of the fifth nerve, is "traumatic," and not "trophic." Still, it is an interesting fact that in three at least out of his thirteen cases the observer found inflammatory signs within the cavity of the middle ear; and we may expect that other Physiologists will be disposed to attach more importance to these results than Professor Hagen would appear to have done, and will probably repeat the investigation.—*Medical Times and Gazette*.

Surgery.

NOTE ON OZÆNA.

BY LENNOX BROWNE, F.R.C.S., EDIN.

* * * * *

In the third note of Dr. Dawosky it is stated that he carefully removes all crusts. How is this done? I believe the only way is to remove them by emollient post-nasal washings, vapour or spray inhalations, or inunctions. They should never be removed by any method involving hæmorrhage, which must always lead to reformation of the crust, and by whatever process they are removed, measures should be taken to prevent their reincrustation. Nothing is better for this purpose than an ointment of vaseline with iodoform, which I prescribe as follows:—

R Iodoform, gr. 5 to gr. 8;
Ether, fl. dr. j. to fl. dr. iss. Solve et adde.
Vaseline, ʒj.;
Ottar rosæ, m v. to m viij.

In post-nasal douches I use about five to eight grains of chloride of ammonium, on account of its largely diffusing power, and an equal quantity of borax with a little glycerine, with or without carbohc acid, to about four ounces of water at 95° F., this amount serving for two douches with my post-nasal syringe.

For vapour inhalations, either pine oil, creasote, or benzole, in water, at 150° F. should be inspired by nose as well as by throat. To whichever is prescribed, eldehyde in no larger proportion than one drop to each inhalation should be added, this drug having a peculiar and quite specific effect on favouring fluid secretions in cases of inspissated mucus, and if administered in larger doses it is apt to produce headache or embarrassment of breathing.

On two or three points I must express my strong disagreement with Dr. Dawosky:

First—I never plug the nostrils, but endeavour to do all I can to favour free nasal respiration.

Secondly—I never employ pure glycerine, because of its powerful attraction for water, which increases the dryness already complained of.

Thirdly—I never employ alum, tannin, or

any other astringent for the same reasons, nor do I ever recommend nasal snuffs, believing that such are contradictory of the physiological function of the nasal organ.

Dr. Massei speaks of the local application of calomel powder to the ulcerated surfaces, and Mr. Nixon in last week's issue of the *Medical Press* relates an instructive case, in which rapid and profuse salivation, with discharge of the vomer, followed this procedure. I have just now under treatment a similar case, with both pharyngeal and palatal ulceration, fissured hard palate, and nasal disease. The plan pursued has been that recommended above, viz., internal administration of iodides, local application of solid nitrate of silver to the pharynx and palate; post-nasal douches, and application of a solution of sulphate of copper to the nasal ulceration, and constant inunction of the nostrils with the iodoform and vaseline. Now at the end of five weeks the patient is nearly well, both palatal and nasal ulcerations being all but healed. It may be interesting to add that in this case, as in many others, the iodide of potassium even in such doses as three grains could not be borne, but five grain doses of the iodide of sodium caused no disturbance, and have all the good effects of the potash salt.

Lastly—I never use nitrate of silver in any form of throat disease, except in syphilitic ulceration, to be then applied to the exact spot in the solid form. Even in these cases I have largely superseded its employment by substitution of the galvano-cautery, acid-nitrate of mercury and sulphate of copper. I have been led to this elimination of the silver applications, and would urge the same on all my professional brethren, because I have never seen any benefit pertaining to them which the other remedies did not enjoy, and because I have personal knowledge (independently of information of others) of two cases in which permanent cutaneous disfigurement has followed their use in throat affections.

For disinfectants I prefer the salicylates, thymol and sanitas, to permanganate of potash on account of discoloration of skin and linen caused by it, and to carbohc acid, on account of its—to many—objectionable flavour. As lozenges, none are superior to Wyeth's com-

pressed chlorate of potash, or chlorate of potash and borax, unmixed with any sugar, or mawkish fruit paste.

As regards dilatation, mentioned as necessary by Dr. Massei in those cases in which the passage is obstructed, the surgeon must try to reduce mucous thickening by the local remedial measures already indicated, and remember that instrumental introduction is but too likely to lead to ulceration of the already turgid and congested coverings. In more advanced cases, when the stage of atrophy has been reached, the passages, already too open, do not require further dilatation, but rather stimulation to promote healthy submucous nutrition.

Where there is actual ulceration I have had good results from application of the galvanocautery, carefully made by means of a strong reflected light, and I have never had occasion to perform the operation of exposing the cavity and removing portions of the bone.

Finally, therapeutic attention to the particular dyscrasia is of great importance, and it is worthy of note of how great service is iodide of potassium, combined, often, with iodide of iron and cod-liver oil, in cases of a strumous nature, where, as at the commencement stated, it is difficult to make out a syphilitic history. In a large majority of the same class of cases, small doses of perchloride of mercury afterwards given, or alternated with the iodide, have the best effects, but I am by no means prepared to say that even with so specific a treatment the cases which derive benefit are of the specific nature which many surgeons would therefore ascribe to them. I am happy to be able, in conclusion, to agree with Dr. Massei in urging the importance of persistence in the treatment of these cases. In no disease does so sure a reward of patient perseverance in well-doing result.—*Medical Press and Circular.*

NEW YORK MEDICAL JOURNAL.—Dr. James B. Hunter has resigned his position as editor of this journal: We are glad to know that it is increasing practice compels this. He is a Canadian and from Toronto, and therefore his success is very gratifying to his friends and acquaintances here. Dr. Frank P. Foster succeeds him.

INFLAMMATION OF THE SKIN.

BY C. HEITZMANN, M.D.

My observations on inflamed portions of the skin have led me to the following conclusions:

1. In epithelium the first step of the inflammatory process consists in an increase of the living matter both in the protoplasmic bodies and between them; the former produces the coarse granulation of the epithelia, the latter the thickening of the so-called "thorns" in the cement-substance. Any particle of living matter, both in the epithelia and between them, through continuous growth, may lead to a new formation of epithelial elements, with the termination in hyperplasia of epithelium (psoriasis, squamous eczema, horny formations, etc.)

2. In connective tissue the first manifestation of the inflammatory process is the dissolution of the basis-substance and reappearance of the protoplasmic condition. By this process and the new formation of medullary elements, which may start from any particle of living matter, the inflammatory infiltration is established. The sum total of the inflammatory elements, which remain united with one another by means of delicate offshoots, represent an embryonal or medullary tissue. If the new formation of medullary elements be scanty, the resolution is accomplished by re-formation of basis-substance (erythema, erysipelas, etc.) If, on the contrary, the production of medullary elements be profuse, a new formation of connective tissue will result,—hyperplasia (scleroderma, elephantiasis, etc.).

3. The plastic (formative) inflammation may be accompanied by the accumulation of a larger amount of a serous or albuminous exudation in the epithelial layer, (miliaria, sudamina, herpes), or in the connective tissue of the derma, (urticaria). In both instances complete resolution will ensue.

4. Suppuration in the epithelial layer of the rete mucosum is produced by an accumulation of an albuminous or fibrinous exudation, by which a number of epithelia are destroyed, and by new formation of pus-corpuscles from the living matter of the epithelial elements themselves. Epithelial suppuration heals without the formation of a cicatrice (eczema madidans

and pustulosum, impetigo, pemphigus, variola.)

5. Suppuration in the connective tissue of the derma results from the breaking apart of the newly-formed medullary elements, which, being suspended in an albuminous or fibrinous exudation, now represent pus-corpuscles. Pus is a product of the inflamed connective tissue itself, and always a result of destruction of this tissue. Suppuration of the derma invariably heals through cicatrization (abscess, furuncle, acne, ecthyma, variola.)—*Archives of Dermatology*.

NOTE ON THE TREATMENT OF MUCOUS POLYPUS OF THE NOSE.—In some cases of polypus of the nose, I have recently been adopting a treatment which has given good results. In structure, these growths consist of but little more than connective tissue infiltrated with serum, and enclosed in something resembling mucous membrane; when removed by avulsion and exposed to the atmosphere, they rapidly shrivel by the escape of their serum; their distended grape-like appearance being exchanged in a short time for that represented by little more than a few shreds of connective tissue. The treatment to which I refer consists in freely puncturing these growths from the anterior nares by means of an ordinary acupuncture-needle, thus allowing the fluid of which they largely consist to drain away. To prevent them from refilling, I follow this up by ordering the patient to inject into the nostrils a solution of carbolic acid and glycerine, which has a most marked drying-up effect, and to continue to do this daily and thoroughly for some time. In this way, I have been able to deal successfully with some cases where the growths have been of a limited nature, and the patient averse to their avulsion. In the last case, I made the punctures with one of Southey's trocars, which answered well, the serum escaping through the cannula. I have thus, in treatment, regarded these as being local and limited œdemas, rather than hypertrophies, and as being, when once emptied, curable by astringents. It is not always possible, from their position, to subject all these growths to puncture, otherwise I believe this plan would be found generally successful.—REGINALD HARRISON, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.—*Brit. Med. Jour.*

THE TREATMENT OF RINGWORM OF THE SCALP.

In answer to Mr. Jeffreys' letter, in the *Journal* of October 11th, on the treatment of obstinate ringworm of the scalp, we have received the following communications.

Mr. James Startin has found the following treatment most successful in a large number of cases. 1. Well wash the parts affected with just enough soft soap to make a wash; thoroughly dry, and then apply with a thick camel-hair brush some blistering fluid. 2. After a few days, when the inflammation has subsided, use alternately the following applications: ol. cadini, creasote, and tincture of iodini in equal parts, and a lotion of hyposulphite of soda, two drachms to the ounce of water, with a little compound tincture of lavender. 3. If the skin should be sore from the use of the above applications then the use of the white precipitate ointment of the *British Pharmacopœia*, diluted with equal parts of vaseline, will prove most beneficial. Mr. Startin does not think we can ever give a prognosis of complete cure of these cases of obstinate ring worm under three months; but he has never found the above to fail.

Mr. J. Naish Smart (Bedminster, Bristol) thinks that Mr. Jeffreys will find a very effectual remedy in perchloride of mercury, in solution of two grains to the ounce of water, with the addition of a little spirits of wine or ether, to make it soluble. This solution, carefully applied with a camel-hair pencil two or three times a day, Mr. Smart has never known fail even in most stubborn cases, where the usual remedies have been used.

Mr. G. Weller (Wanstead) recommends attention to the general health of the children. Plenty of fresh air, liberal diet, great cleanliness, together with tonics, iron, and especially cod-liver oil, will do much to improve their condition. Having a large public school under his charge, Mr. Weller finds that when he gets such cases as are described, the children are mostly of a strumous class; and by letting them have the run of the grounds, also of the kitchen, they soon get rid of their troublesome ailment.

Mr. Francis Toulmin (Upper Clapton) has

for many years been in the habit of using a solution of creasote in glacial acetic acid—one drachm of the former in seven drachms of the latter. The parts affected are painted with a stiff camel-hair brush. A crust is formed, which should be allowed to remain until the new hair raises it from the scalp. He cannot call to mind any case in which this remedy has failed to perfect a cure.—*Brit. Med. Journal*.

HOT WATER IN CHANCROIDS, AND ESPECIALLY IN PHAGEDENIC CHANCROIDS.—I have lately found a new and very valuable therapeutic application of hot water, namely, in the treatment of infecting chancroids, and more especially in that very intractable form—the phagedenic. My method of procedure is very simple: A piece of sheet lint is made into a pretty solid ball, and being held in a pair of dressing forceps, it is immersed in water not much below the boiling point (in many cases a temperature of 30° or 40° F. will answer), and then this ball of lint is to be pressed forcibly upon the sore. This is repeated daily for several successive days, or until the granulation begins to assume a healthy appearance. As a dressing, simple cerate will suffice, or the sore may be sprinkled with iodoform and covered with dry lint. The hot water coagulates the albumen in the secretions, and gives to the sore sometimes a whitish appearance, as when nitrate of silver is applied. It is less painful than any of the mineral caustics, and the pain subsides more quickly; and there is no doubt that it destroys the infecting qualities of the sore as thoroughly, while it possesses the great advantage that it does not destroy any of the living tissues. Yours truly, FRANK H. HAMILTON, 43 West 32nd Street, New York.—*Va. Med. Monthly*.

INJURIES TO URETHRA.—In the treatment of contusions and contused wounds of the urethra, Dr. Lequerré concludes that it is necessary in every grave rupture of the urethra—

1. To abstain from all attempts at catheterism, and to practise at once on the perineum a long and deep incision reaching to the urethra.

2. Then pass a caoutchouc sound—first into the anterior portion of the urethra, then into the posterior, and allow it to remain.

3. Withdraw the sound after four or five days, and until recovery pass the catheter daily.—*Le Prog. Méd.*

Midwifery.

CASES FROM PRACTICE.

BY WILLIS P. KING., M.D., SEDALIA, MO.

TAMPONING THE VAGINA FOR CYSTITIS.

In the May number of the *Courier*—current year—I read an article from the pen of E. C. Gehrung, M.D., of St. Louis, on “*A New Method of Treatment of Acute Cystitis in Women*,” etc., which method consists in tamponing the vagina with cotton, so as to support the posterior wall of the bladder, give rest to that organ and prevent an accumulation of urine in the sagging wall. Dr. G. deserves the thanks of the profession for his most excellent paper; and the article was most satisfactory to me, because it explained upon scientific grounds some things that I had not understood.

I have been in the habit for years of tamponing the vagina in cystitis, because I reasoned, in most cases (and especially in married and child-bearing women), the bladder must be interfered with by a displacement of the uterus—anteverted or anteflexed—pressing upon the fundus of the bladder; or by a *prolapsus* dragging upon and displacing the bladder and thereby disturbing its functions. I therefore tamponed the vagina to elevate the uterus and prevent its disturbing the bladder. But I did not, in all cases, make out either a flexion, version or prolapsus, and yet the relief afforded by tamponing was so uniformly satisfactory (always giving almost instantaneous relief) that I practised it without being entirely satisfied in my mind as to the whys and wherefores. So marked was the relief in all cases in fact, that I fell into the habit, when called to see a woman suffering with frequent micturition, burning and scalding pains at the neck of the bladder—of at once setting about the preparation of a tampon.

I could give many cases illustrative of the benefit to be derived from this practice, but will give but one; and since Dr. Gehrung regretted that this method of treatment excluded virgins, I will give a case occurring in an unmarried woman—a virgin.

I was called on the 6th day of July to see an unmarried woman, twenty-two years old, who had stood on her feet during almost the entire day of the 4th, and had walked to the Fair Grounds (where the celebration was held) and back home—a distance of more than one mile—three times. On the 5th she had a feeling of weight and uneasiness about the bladder, with frequent micturition, which grew gradually worse and culminated in a chill, with increase of the bladder trouble, on the night of the 5th. I found her suffering with intense vesical tenesmus, some fever, rapid pulse, and a constant desire to micturate. Gave potass. acetat. and extr. beladonnæ, with flax-seed tea, and applied hot fomentations over the region of the bladder. Was called on the morning of the 7th, and found her no better. I then determined to tampon the vagina. Turning her across the bed with hips near the edge, I introduced the index finger of the left hand, palm upwards into the vagina. Then having the mother prepare bits of cotton—one-third the size of the thumb—into firm wads, I introduced them one by one with uterine dressing forceps, making the greatest pressure upon the palmar surface of the finger in the vagina, and with that finger packed the wads of cotton around the cervix until I filled the vagina. She was asleep in less than twenty minutes. I did this once a day for three days, and afterwards had no trouble in controlling the difficulty.

The objection to using this method in the treatment of virgins, is the fear of rupturing that insignificant little membrane that everybody seems so sensitive about—the hymen. I did not rupture the hymen in this case; but, supposing that it had been necessary, must a woman's future health and happiness be sacrificed to save a thin delicate membrane that no one needs and nobody uses?

FISSURED NIPPLES.

Of all the small things which worry a practitioner of medicine, this apparently little ailment has been the bugbear of my professional life. Apparently so insignificant, and yet so persistent and intractable, that I have often felt that I would give a good round sum for what I could really call a remedy, and have

always wished that I may never see another case of it. Do what we will the child must suck (children do not nurse in Sedalia, they *suck*) or the milk must be drawn with a breast pump, and, in either case the fissure is torn open and bleeds and our case is as bad as ever. I have tried everything—tr. benzoin, argent, nitras, collodion, and have seen my work go down to naught at the hands (or mouth rather) of an infant, only one week old. I found myself with a ease of this kind on my hands in the month of August of this year. Two or three times the case was reported to me as cured, and as often an "adverse report" had been sent in the next day. On one of these occasions I walked into my private office, trying to think of something, when my eyes fell on a bottle of "Prof. Callen's Brazillin Gum." It came to me like a revelation. I had bought the stuff to mend a Politzer's bag. It is pure gum in solution (in naphtha, I think), and is of about the consistency of thick mucilage. When exposed to the air the solvent evaporates and leaves the elastic rubber adhering to whatever it has been applied. I knew it would do. I went at once to the patient and applied it with a camel's hair pencil all over the nipple (except the milk ducts) and over the areola around the nipple. It remained on three days, and came off leaving the parts entirely healed. There were one or two slight fissures afterwards, but the patient applied the remedy without sending for me and had no further trouble. I have tried it in other cases with equal success. I also applied it to a largely abraded surface on a man's face, who had been thrown from a buggy and scraped the side of his face on the ground. The remedy adhered beautifully, excluding the air, and when it came off, rubber, scab, and all came together, leaving a perfectly healed surface behind. This preparation is usually kept by dealers in leather supplies.

Mr. Editor: All the above are *successful* cases. "Let the dead bury the dead."

[Cobblers, for mending shoes with what they call the "seamless patch," use a kind of cement, made by dissolving gutta percha in benzine or bisulphide or carbon. It is found in the "leather and findings" stores, put up in two-oz. bottles, retailing at 15 cents. The odor is

disagreeable, but if bisulphide of carbon is the solvent used, it may be deodorized by tinct. iod., $\frac{1}{4}$ part, or it may be scented with mint or bergamot. Chloroform is also a solvent for gutta percha. This solution has been used to retain the edges of incised wounds in apposition; also to protect abraided skin against mechanical injury or the absorption of poisons.

The dermatologists have of late been very largely using rubber bandages in the treatment of eczema and other skin diseases, and it occurred to us that this solution of gum would be an excellent substitute, and much more convenient. On investigation, we find it has been recommended in the treatment of lepra, psoriasis, small-pox and erysipelas. We believe Dr. King is the first to recommend it for sore nipples.—Ed.]—*St. Louis Courier*.

UPON WHAT DAY OUGHT THE LYING-IN WOMAN TO LEAVE HER BED?

The polemic recently opened in America between Goodell and Panigues (the first wishing the newly-delivered woman to get up after the second day, because in 756 women thus treated he has lost only 6; the second being adverse to this plan of treatment) engages Kuestner to give publicity to some experiments undertaken with the same idea, two years ago, in the clinic of Olshausen, at Halle.

Sixteen women, whose labour had been as normal as possible, and who presented no exterior lesion, were chosen. All began to get up, as they wished, in one of the four first days of the lying-in; six of them were primiparæ, seven were at their second labour, two at their third, and one at her fourth.

The sanitary state of the establishment was excellent, and for more than a year no lying-in woman had succumbed to a puerperal affection.

Four left their bed from the first day, two the second, three the third, and seven the fourth.

Amongst those who got up from the first day, none desired to remain up more than four hours; the next day they remained up longer; and after the fourth, they passed all day out of bed.

When a woman who had arisen was found with feverish symptoms, she was from this time

consigned to bed. These women had no other occupation than the care of their children.

A first effect of the sojourn out of bed was the regularisation of the functions of the intestines; the quantity of urine did not appear to be modified.

The loss of weight which normally follows childbirth was not more marked in those women who got up than in those who remained in bed, although the regimen of both was the same.

This fact was the more surprising, as in the first the lochial discharge was more abundant.

In addition to their abundance, the lochia of those who got up was also marked by the prolongation of their thin consistence, by their rosy tint, and by their serous nature.

None of those who remained out of bed had metrorrhagia; 13 of them presented no delay in uterine involution, and have never offered, during the ten days of observation, a temperature above 38° (100° F.), a figure which has otherwise been attained only twice at night.

The three other women were attacked with fever the very day on which they began to get up. The first was a multipara, who got up on the third day; the second and third got up on the fourth day. Two of these fever cases had a small vaginal tearing, which had probably been irritated by the upright position, and by the contact of the lochia. On the other hand, it is not superfluous to remark that amongst those who had no febrile movement two had a wound quite analogous. In one only of the three with fever, on her leaving the hospital, was found a small exudation in the left broad ligament.

To sum up. Although the precocious arising of the parturient woman suppresses constipation, favours instead of harming uterine involution, by rendering the different functions active, and does not appear able to become the cause of either retroversions or fallings of the womb, since it provokes fever in certain women, Kuestner concludes that it is necessary to keep to the old plan, and leave the lying-in woman in bed for a week.—*Lyon Méd.*

FOR ASTHMA.—One-tenth of a grain of apomorphia given hypodermically will relieve orthopnea of asthma in a surprisingly short time.

THE TREATMENT OF POST PARTUM HÆMORRHAGE.—Vinegar I have found not only a certain remedy for post partum hæmorrhage but a remedy as safe as it is certain to cure. In the many very bad cases where I have used it the hæmorrhage was always arrested, and in but one instance did the woman subsequently die, and in this case neither I nor the immediate attendant (my friend Prof. John Neill) had any reason to attribute the woman's death (neither did we) to the vinegar I had used to check a most appalling case of flooding. In the many reports which I have received from my former pupils on this subject, I have yet received none where any unfortunate results have followed the application of vinegar. Vinegar may be applied instantly and without apparatus—perhaps I should mention precisely my method of using it. I pour a few tablespoonfuls into a vessel, dip into it some clean rag or a clean pocket handkerchief. I then carry the saturated rag with my hand into the cavity of the uterus and squeeze it; the effect of the vinegar flowing over the sides of the cavity of the uterus and through the vagina is magical. The relaxed and flabby uterine muscle instantly responds. The organ at once assumes, what I will term, its gizzard-like feel, shrinking down upon and compressing the operating hand, and in the vast majority of cases all hæmorrhage ceases instantly; should one application of vinegar fail to secure sufficient contraction, the hand can be withdrawn, and a second or even a third application can be made, until the uterus shall contract sufficiently to stop the flow of blood.

GLYCEROLE OF BISMUTH IN ULCERATION OF THE CERVIX UTERI.—Dr. Suesserott, of Chambersburg, Pa. (*Med. Record*), uses a thick cream of bismuth in pure glycerin, for ulceration of the cervix uteri, applied by means of absorbent cotton, and is enthusiastic in its praise. No other application gives such speedy relief. "The congestion of the cervix is at once abated by the glycerin through the endosmotic action that is set up, and the ulcers disappear as though waved away by a fairy's wand."

A paste of pulverized ergot is said to remove the smell of musk from the hands or utensils.

Original Communications.

EPILEPSY.

BY C. K. CLARKE, M.D.,

Assistant Physician of the Asylum for Insane, Toronto

(Read before the Toronto Medical Society.)

I have selected epilepsy as a subject for this paper, but, in treating of it, will try to confine my remarks as much as possible to facts, and leave untouched the debatable ground of theory, in which so much relating to the disease is involved. As a general rule, too, the paper will refer to the epileptic insane, as it is upon this class nearly all the observations have been made.

Any person who has had experience in Asylum practice cannot fail to become deeply interested in the subject of epilepsy, as so many remarkable and sad cases are continually coming before his notice. The epileptics who reach Asylums are generally confirmed cases, in which the disease is of long standing, and the seizures are of a more violent type than those witnessed by the physician in private practice. As with the majority of patients admitted, the forms of application sent to us afford but little satisfactory information in regard to the origin and progress of the disease, and the facts furnished of the family history are, nine times out of ten, of the vaguest description. Difficult as it is to obtain reliable statistics upon the subject, owing to the morbid sensibilities of friends, still it is possible to learn enough to confirm one in the opinion that if epilepsy is not directly hereditary in many instances, it is the offspring of a host of other neurotic diseases. We have at present under observation a capital illustration of this hereditary tendency to disease of the brain. About five years ago, a young man of twenty years of age was admitted to the Asylum, labouring under an attack of acute mania, from which he recovered in a short time. Being taken home, his mental condition remained sound, but his bodily health failed, and he died of phthisis. Since then a brother has been admitted, and is at present in Dementia. While passing through the wards of the Toronto General Hospital this month,

(Nov., 1879,) I discovered that another brother was in that institution, and was receiving treatment for epilepsy. An aunt died insane. This is a striking case, but is only one of many that can be adduced to prove that family history will furnish much information in regard to the occurrence of epilepsy. That the disease is transmitted from generation to generation is no longer a disputed point. To illustrate this, I know of no better instance than that of a patient now in the Toronto Asylum. The patient is an epileptic, and a brother and two uncles are similarly diseased; yet the relatives insist that there is nothing hereditary in the case. The epileptic I refer to was stated to be free from any hereditary taint, and it was only by accident that the above facts were arrived at. Could accurate statistics be obtained, it is probable that in the majority of cases of epilepsy, where traumatic and eccentric causes are excluded, an hereditary tendency to disease of the brain would be found. Ever since the Toronto Asylum has been open, epileptics have been numbered among its inhabitants. During the last six years it has always been possible to find more than twenty in residence. At present there are twenty-five patients of this class, nineteen being males and the rest females. Judging from the Asylum statistics, this seems to have always been the proportion; and yet, upon consulting different authors, we find it stated that more women than men are epileptics. If true, the only way to account for the difference is, that men being stronger than women, prove more dangerous when excited, and, consequently, Asylum confinement is required oftener. Perhaps some here, who have had years of experience, can bring forward facts to explain this apparent discrepancy from reliable statistics.

It is almost impossible to attempt any definite classification of the different cases which come under observation, as no two seem to be exactly alike. There are those who have fits daily, those who have them only at long intervals, and those again whose seizures occur at stated periods. In cases where the fits are of daily occurrence, mental alienation is, as a general rule, marked at all times; and the oftener attacks occur, the more oblivious does the

patient become to his surroundings, until complete dementia is the result. Where the fits occur at long intervals only, the mental condition immediately prior to, and directly after the attack, is greatly different from the ordinary state. The quiet, harmless man of yesterday is converted into a dangerous, excited maniac, or often what is worse, a morose, suspicious mortal with homicidal tendencies. To those unaccustomed to dealing with such persons, perhaps nothing unusual would be perceptible; but any one who has witnessed a sudden outbreak will never forget it, and will prove an acute observer in the future. It is at these times that terrible crimes are committed, and the poor unfortunates are often condemned to suffer for what, nine times out of ten, in law is held to be a responsible act. It is not in the compass of this paper to go into the question of responsibility of epileptics, but there is not the least doubt that many a non-responsible man has been hanged directly in the face of the evidence given upon the case. I do not wish to convey the impression that I believe epileptics are at *all times* incapable of committing crimes for which they are responsible, but merely desire to state that such persons have often been convicted and punished when they were clearly not responsible.

One might suppose that it would be after the attack danger should be apprehended from mental derangement; but, as a matter of fact, it has been noticed frequently that disturbance of the mind takes place before the seizure. Strange to say, epileptics who are accustomed to having fits every day are not so dangerous as those who are attacked at longer intervals. Violence is often attempted immediately before a fit. It is no uncommon thing for a patient to seize a chair, attempt to injure any one standing near, and at once fall in convulsions, or strike madly all round him. When an epileptic has fits daily, one can always be prepared for a dangerous exhibition of temper; but when we have to deal with those in whom indefinite intervals elapse between the attacks, there is cause for anxiety. Such patients, in the intervals, will probably talk rationally, and being so much better, mentally, than their

companions in the wards, are apt to deceive the uninitiated. Not unfrequently these epileptics, forgetting, or perhaps not knowing of their dangerous propensities, will ingratiate themselves in the good graces of strangers visiting the Asylum, and prove the subjects of much misplaced sympathy amongst the "knowing ones" outside, who are shocked to think that *sane* people are kept under lock and key. There is one case at present in the Toronto Asylum, to which I can refer in particular. The patient in question is, physically, a perfect man, and a Hercules as regards strength; has been troubled with epileptic fits since a child; is now more than forty years of age. The fits come on at no definite times, but usually he has not more than one in six or seven weeks. An acute observer will discover unmistakable warnings of the coming attack, a slight difference in temper being noticed. In the intervals he is affable, intelligent, and talks well on almost any subject, and remembers all that occurred in the previous attacks, but cannot understand why he was restrained then. After a seizure, he may not show much difference in disposition for a few days, but then suddenly breaks out with marked homicidal tendencies. He imagines his food is poisoned; persistently refuses to eat, and once had to be fed with the stomach-pump—an operation by no means inviting under the circumstances. On more than one occasion I have seen him attack attendants and patients in a most violent manner. Fortunately he can be induced to keep in his bed when dangerous, and generally remains there for ten days, at the end of which time he returns to his usual condition of mind. Although, when at home, he injured several persons yet his friends are anxious to take him out of the Asylum; and a lawyer, remarkable for his astuteness, has made several ineffectual attempts to have him discharged from the institution. If this lawyer were in the patient's companionship during one of the attacks, his zeal in philanthropic acts might give way to zeal in an opposite direction. But there are those who understand the whole subject of insanity by a sort of divine inspiration that ignores all experience.

Another interesting case worthy of notice

was that of a young man sent to the Asylum a little more than a year ago. He was twenty years of age, and his history stated that an uncle had suffered from an attack of melancholia. In this epileptic the fits did not come on at any particular time, but their approach was easily foretold, as the premonitory evidences were marked. As a general rule, the patient was quiet and of a kind disposition; but, when in business in the city, had been led into all kinds of excesses. Before the fits would come on, all sorts of extravagant acts would be done. While in the Asylum he gave but little trouble, as long as his unwelcome visitors stayed away, but during his attacks proved dangerous and terribly destructive. The steady life which he had to live while with us seemed to exert a beneficial effect upon him, and comparative freedom from fits was the result. The poor fellow was always sanguine of his ultimate recovery, and tried, with eagerness, different remedies. Becoming wearied of Asylum life, and having had no fits for a long time, his friends took him out, firmly believing that a permanent cure had been effected, although advised to the contrary. A few weeks after his discharge he visited the Asylum, and was present at one of the weekly dances held there. He appeared to be more vivacious than usual. After leaving the Asylum at 9.30 p.m., it seems he remembers going as far as the end of the wall which surrounds the grounds, and after that all was a blank until next morning, when he found himself near Woodbine race-course, a distance of several miles. What happened in the interval between night and morning no one knows. The probabilities are that he had a fit. This is only one incident from the many peculiar adventures said to have happened to this person. The excitement of the dance undoubtedly did him harm. This fact had been ascertained before he left our care. I mention this case merely as an example to show how rapidly the mental condition may change in epileptics.

When a patient who has habitually had fits is suddenly left free from his accustomed attacks for an unusual length of time, the sign is not always a favourable one, and the return may be looked for with anxiety. Such inter-

missions are generally followed by fits of increased severity, and sometimes are the precursors to a fatal termination of the disease. I have seen this happen more than once. A good example occurred a short time since. A young man, twenty-five years of age, was admitted to the Asylum more than a year ago. At the date of his admission he was suffering from an attack of epileptic mania, and proved troublesome in the extreme. He imagined poison was placed in his food; would scream terribly, and had fits daily. As with the most of such persons, his temper was subject to dangerous fluctuations, and a strict watch was kept over him. In the early part of this year his fits ceased, and he became quiet, affable and perfectly rational, and, knowing his unfortunate condition, was willing to do anything that promised relief. Owing to his improved state he was allowed considerable latitude, but was never permitted to go about the grounds unless accompanied by a reliable patient. In eight months he had but two light fits. On the evening of the 24th of October, 1879, while in the orchard, he ate a large green apple, and after coming into the building took a hearty supper. Nothing unusual was noted in his appearance, and at 8.30 p.m. he went to bed in excellent spirits. At two o'clock next morning I was called up to see this epileptic, who was reported to be in a violent fit. When seen, he was found to be in a severe paroxysm, the spasms following each other with frightful rapidity. The lips and face were covered with white froth, which was escaping from the mouth. In a minute or so the spasms began to diminish in intensity, until the contractions of the muscles were hardly perceptible; then a gradual increase took place, until the convulsions were as violent as when first noticed. This was repeated some fifty times, when death took place. The *post-mortem* appearances will be referred to further on in the paper.

Another variety of epilepsy is that in which the seizures take place at regular intervals. Such cases are not common, and occur oftener in women than in men. When women are thus afflicted, some authors state that the attacks will be found to occur at the time of menstruation. I do not mean to assert

that the convulsions recur at all times, with mathematical precision, upon a certain day, but think that the name "periodical" is applicable, as the attacks vary so little in the dates of their recurrence. Occasionally there may be a longer time of exemption than usual, but the old regularity is generally returned to. We have one marked case of periodicity in the Asylum at present. The patient is a male—forty years of age; is rather refined, and has seen better days. Five years ago had his first epileptic fit; and, although a married man, the cause is stated to have been masturbation—a habit, by the way, which is common to the mass of epileptics. He will have four or five fits in two days, and then the stage of excitement comes on—imagines he is sailing in a vessel; is perfectly happy and contented; takes no care of his person; has no idea of keeping bed-clothes on the bed; and says he never felt better in his life, in answer to all enquiries. This condition of excitement persists for four or five days, when he returns to his customary quiet state. His reason is gradually becoming undermined, and he is more childish than he was a year ago. His fits recur every fourth week with almost unvarying regularity. In nearly two years this interval between fits has been lengthened twice—once to five, and upon another occasion to seven weeks. In each instance the attack following was of far more than ordinary severity. The last noticeable feature in this case is the occurrence of muscular tremors, of which the patient does not seem to be conscious. We have had several women afflicted with periodical attacks. One woman, at present an inmate, a few years ago had fits regularly once a month; but of late bursts of maniacal excitement have supplanted the old trouble. Such is not rare, and our President will likely remember many instances of this substitution of mania in the place of convulsive attacks. As one might anticipate, erotic tendencies are marked during the excited stage.

Another class of epileptics is that in which the seizures occur for the first time in persons who have been insane for years. As a rule, the fits recur at very long intervals. There are four patients of this class in the Asylum.

Of them it is not possible to say much beyond the fact that all are addicted to masturbation. Whether this has anything to do with their trouble or not, I cannot say.

The following are a few of the characteristics of epileptic fits:—The patient almost always falls forward. I have never seen but one exception to this rule. The convulsions are at first tonic, but rapidly become clonic in character. A scream is generally uttered before the fall, frothing at the mouth is constant, and not unfrequently involuntary evacuations of fæces and urine take place. The clonic convulsions last two or three minutes, and after their cessation the patient falls into a deep sleep of variable duration. Respiration is laboured, and the tongue often wounded. All here are so familiar with the appearances that it is useless to say anything more on the subject. Of course, the above characteristics are absent, to a great extent, in attacks of *petit mal*. It may be interesting to enumerate a few of the peculiarities of epileptics:

Visions partaking of a religious character are common, and we hear many described quite as wonderful as Mahomet saw when suffering from this disease. The sight of one epileptic having a fit will often cause another to fall in a similar convulsion.

Dislocations are sometimes caused by the violence of muscular contraction. We have a patient in whom dislocation of the inferior maxilla invariably takes place during a fit, but the accident has occurred so frequently that no trouble is experienced in returning the jaw to its proper place.

Muscular tremors, or what one of our patients styles "jerking spells," are common.

Before speaking of the causes of death and *post-mortem* appearances in epilepsy, I shall refer, in as few words as possible, to the treatment.

As the hope of recovery is vain, palliative remedies alone can receive notice. Some seem to think that palliative remedies even should be deserted, and the disease left to run its course. This is not humane; and when we have such efficacious preparations as nitrite of amyl and the bromides, it is only right to give them a fair trial. The former medicine

has been tested extensively in the Toronto Asylum, and experience has proved it to be useful in certain cases. When first used accurate observations were made, and the following general conclusions arrived at. In the majority of instances where epileptic seizures had been of daily occurrence, a marked palliative effect was noted for a time; but with continued use the medicine lost its power. Patients who had been subject to fits every day escaped for a month at a time while taking amyl; others had attacks of *petit mal*, in the place of their ordinary violent fits; while there were some who received no benefit at all. Where epilepsy was periodical, the amyl was powerless. I may mention that this medicine was always given by the mouth, a quarter of a minim being the maximum dose at first. It is better to mix it with glycerine and water. We have never tried its effects by inhalation, but I have had a case reported to me in which it was successfully employed in this way. The patient was a young lady, subject to frequent attacks of epilepsy. The different members of her family carried small bottles of amyl about their persons, and by allowing the patient to inhale the medicine could arrest a threatened attack even after the premonitory scream had been uttered.

As nitrite of amyl causes paralysis of the vaso-motor system, and, consequently, congestion of the capillaries, it is easy to understand why it should arrest a paroxysm, which is the immediate result of anæmia of the brain. That anæmia of the brain is the condition at the time of a seizure, there is not much reason to doubt; the paleness which is evident immediately before a fit points to that. The bromides have been tried with varying success, and in endless combinations. Bromides are open to the objection that the general health of the patient is apt to suffer when they are continued for any length of time. As with amyl, a tolerance seems to be established under steady administration.

Brown-Sequard's mixture, composed of bromide of ammonia, bromide of potassium, and Tr. Gent. Co., appears to be the most successful combination. Dr. Poole, in his recent work upon Physiology, refers to a case where an

impending attack of epilepsy was averted by the speedy administration of a dose of whiskey. If this remedy is as efficacious in all cases as it was in this, its popularity is ensured.

Different works recommend different remedies, and the whole Pharmacopœia seems to have been gone through in the hope of discovering a specific, but with one result, viz., disappointment. Nitrate of silver, sulphate of zinc, belladonna, etc., have all been lauded, and cases of recovery reported under each style of treatment; but there is reason to doubt whether the so-called cases of recovery are entitled to be named such, as it is a well-known fact that epileptic fits at times disappear spontaneously, and do not recur for many years.

There is one point worth noticing in regard to the care of epileptics. It is always well to have the patient sleep on a bed made upon the floor, or upon a bedstead with the legs sawn off. This little precaution will prevent many an ugly bruise and cut.

Death.—As might be supposed, death in epileptics generally takes place in a fit. Patients may escape for many years and live to a good old age, but the end is nearly always the same. Although death occurs so frequently during a paroxysm, the convulsions are not invariably the cause of dissolution. It is not uncommon for the patient to smother, by rolling face downwards in the bed, the pillows effectually preventing respiration. Epileptics are exposed to all sorts of dangerous accidents, and the tendency to fall forwards increases the liability to injury. Death is sometimes preceded by a series of violent fits—perhaps thirty, forty, or even fifty—following each other in rapid succession. Over-indulgence in eating has been known to induce a fatal attack. Apoplexy, caused by the rupture of one of the cerebral vessels during a seizure, is said to be an occasional cause of death; and so on.

Post-mortem Appearances.—The following facts may be gleaned from a study of the records of *post-mortems* made upon epileptics who have died in the Asylum:—

Thickening of the membranes is sometimes found.

Adhesions common.

Spots of brain-softening were noticed in one patient who died after a succession of fits. Another similar case has been reported to me by Dr. Lett.

A serous deposit of gelatinous appearance, found between the arachnoid and pia mater, was noticed in almost every instance. In general paresis, where epileptiform convulsions are common, a similar serous effusion is found; whether it is the cause or result of disease it is hard to say, the probabilities being that it is the result. In support of this view Rosenthal says:—

“The status epilepticus is produced by a continuous central irritation, preventing in the beginning the return of consciousness and then terminating in inflammatory exudations, and, perhaps, even in paralysis of the vaso-motor centres.”

The serous effusion is always found on the upper surface of the brain.

In the *post-mortem* made upon the patient referred to in the body of this paper as having died after a series of fifty fits, the fact was revealed that a larger quantity of serum than usual had been effused, and adhesions between the membranes were marked. I may also mention that a large clot was found in the longitudinal sinus, but we were not able to determine whether it was of *ante* or *post-mortem* formation.

It is impossible in a paper of this description to give more than a hurried outline of the disease, and I hope I will not be criticized too severely for having neglected many of the important points in connection with it.

OIL OF EUCALYPTUS IN BRONCHITIS.—Having employed this oil in eight or nine cases of bronchitis with most excellent results, I would recommend a fair trial of it. In chronic bronchitis, in asthma, and in the advanced stages of ordinary severe colds, its influence seemed to be very pronounced for good. It differs from most balsamic remedies in acting also as a narcotic and allaying cough. Twenty drops of it should be given in emulsion four times a day. In asthma it has in one case relieved the paroxysms after failure of ordinary remedies.—H. C. W.—*Medical Times*.

THE CANADIAN Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, FEBRUARY, 1880.

MALT EXTRACT, MALTINE, DRY EXTRACT OF MALT.

IN our last issue we stated that we would discuss the merits of the various preparations of malt and its combinations. So many good preparations and combinations are before the public that we have concluded to do better than to attempt to give anything original, but in place thereof to republish an address by Dr. Wm. Roberts, of Manchester, which appeared in *The British Medical Journal* of November 1 and 8, 1879.—

THE DIGESTIVE FERMENTS, AND THEIR THERAPEUTICAL USES.

BY WM. ROBERTS, M.D., F.R.C.S.

Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

You all know that before food can be absorbed into the blood and made available for the nutrition of the body it must first be digested. By digestion, the albuminous and collagenous constituents of our food are liquefied and converted into diffusible peptones; the starchy matters are converted into sugar, and the fats are emulsified and partly saponified. Cane-sugar is also changed into glucose. Native glucose, which exists in abundance in all our sweet fruits, is absorbed unchanged, and may be regarded as a ready-made digested food, or rather as a starchy food predigested for us by the agency of plants. The digestive processes are all of a purely chemical and mechanical nature; and they can be imitated successfully in the laboratory, and even in the sick room and nursery.

The agents concerned in these processes are the several digestive juices; saliva, gastric juice, pancreatic juice, bile, and the intestinal secretions. These juices owe their activity to a very remarkable group of bodies, called soluble (or unorganized) ferments; and it is to these ferments—to certain points in their modes of action and mutual relation—that I propose to direct your attention.

In the annexed table I have arranged, in the first column, the digestive juices in their natural order of succession; in the second column are indicated the ferments proper to each of them; in the third column, the nature of the action of each ferment on food-stuffs; and in the fourth column are placed the various medicinal preparations, which are the equivalents or substitutes available for administration to patients in whom this or that digestive juice may be supposed to require artificial assistance.

Table of the Digestive Juices and their Ferments.

Digestive Juices.	Ferments contained in them.	Action on Food-Stuffs.	Medicinal Substitutes.
Saliva.	Diastase.	<i>Amylolytic</i> , changes starch into sugar.	Various preparations of malt, extracts of malt, malt flour, extract of pancreas.
Gastric juice.	(a. Pepsin.	{ <i>Proteolytic</i> , changes proteids into peptones in an acid medium.	{ Various preparations of pepsin, pepsin-wine, liquor pepsinæ, lactopeptin, etc.
	b. Curdling ferment.	{ Curdles the casein of Milk.	{ Rennet.
Pancreatic juice.	(a. Trypsin.	{ <i>Proteolytic</i> , changes proteids into peptones in an alkaline medium.	{ Pancreatine.
	b. Curdling ferment.	{ Curdles the casein of milk.	{ Glycerine extract of pancreas.
	c. Diastase.	{ <i>Amylolytic</i> , changes starch into sugar.	{ Liquor pancreaticus.
	d. Emulsifying ferment.	{ Emulsifies and saponifies fats.	{ Pancreatic rennet.
Bile and intestinal juice.	?	?	o

An examination of the table shows that a complicated series of ferment-actions is required to complete the digestion of our food; and it is certain that our information is still imperfect on several points, especially in regard to the uses of the bile and the intestinal secretions. It is no part of my purpose to attempt a

general account of the digestive processes, but only to pick out certain points in regard to which I may have something to say, which is either novel or has a practical bearing on the treatment of our patients. Of the bile and succus entericus I do not propose to say anything. I shall divide my remarks under the three headings of saliva, gastric juice, and pancreatic juice; and shall conclude with some observations on the preparation of peptones, and the feeding of patients on peptonised food.

1. SALIVA.—Saliva has but one ferment—namely, diastase, or, as it is sometimes called, ptyalin—and its sole action is to convert starch into sugar. Saliva acts with energy on gelatinized or cooked starch, but with extreme slowness on the native and unbroken starch-granules. This is the reason, or necessity, for the practice which has arisen and become universal among mankind, of cooking farinaceous articles of food before they are eaten.

The action of saliva on starch goes on in the mouth and gullet, and for a while after the morsel has reached the stomach: but the action is arrested as soon as the meal is thoroughly permeated by the gastric juice. In the case of a meal of farinaceous food, this arrest occurs long before all the starch is digested: and the work is taken up and finished, after the food has passed the pylorus, by the pancreatic juice. When the digestion of starchy food is at fault—or supposed to be at fault, for we really possess little exact knowledge of the indications of such a condition—we resort to one or other of the preparations of malt which contain diastase. At the present moment, the most popular of these preparations are the malt-extracts; and, to judge by the scale on which these extracts are advertised in the medical journals, they are very popular indeed. Several of these preparations are on the table before you; and I think they are likely to prove a valuable addition to our stock of remedies. They resemble a thick brown treacle in appearance, and their taste and smell are not unlike treacle. The statements made in the advertisements as to the nutritive value of malt-extracts are preposterous exaggerations; they are little better, merely as food, than so much syrup. Their real value lies partly in the diastase they

contain, and partly in the pharmaceutical uses to which they may be put as vehicles for other drugs, especially cod-liver oil. If properly prepared, malt-extract is rich in diastase, and has a high power of digesting starchy matters. But you will be surprised to learn, as I was, that a large proportion of the malt-extracts of commerce have no action on starch. This is owing to a too high temperature having been used in their preparation. Any heat above 158° Fahr. is destructive to diastase in solution; so that if the extract be evaporated, as is directed by the German *Pharmacopœia* at a temperature of 212° Fahr., it is necessarily inert on starch. Out of fourteen trade samples of malt-extract examined by Messrs. Dunstan and Dimmock, only three possessed the power of acting on starch; and all the rest were inert. I myself examined three brands of malt-extract in regard to this point, and found all three very active. But even the most active of the three was feeble when compared with an extract of pancreas which I shall show you presently.

It is important to choose the right time for giving preparations of diastase, otherwise you may obtain little or no help from them in the digestion of the starchy constituents of the meal. The labels on all the malt-extract bottles I have examined direct a dose to be taken after meals. This is evidently a mistake. I told you a while ago that the action of diastase is arrested in the stomach; and I have reason to believe that this arrest is permanent, and that, under the ordinary conditions of digestion, not a particle of active diastase escapes through the pylorus. If, therefore, you wish to get a full amount of work from the dose of malt-extract, you should administer it, like the natural saliva, with the food; or, better still, mix it with the food beforehand. The malt-extracts lend themselves exceedingly well to this latter mode of administration. They have a sweet agreeable flavour, and a teaspoonful or two may be added as a sweetener, and mixed with tea, cocoa, coffee, arrowroot, sago, or any other farinaceous dish. The only precaution to be observed is that the food should be sufficiently cooled down to be endurable in the mouth before the malt-extract is added. I

have found on trial that you cannot eat or sip, even in teaspoonfuls, any substance which has a temperature above 150° Fahr., and, at this heat, diastase not only remains uninjured, but is highly active.

2. GASTRIC JUICE.—Gastric digestion has been the subject of numerous and successful studies in times past, and our knowledge thereof to-day is little in advance of what it was when most of us were students. For this reason, it will not detain us long.

Pepsin.—The special ferment of the gastric juice is pepsin, and its office is to digest the albuminous and the gelatigenous constituents of our food. Pepsin is only active in the presence of an acid; and the normal acid of the stomach appears to be hydrochloric acid; other acids, however—lactic, phosphoric, citric, etc.—render pepsin active, but not so energetically as the hydrochloric.

Under the influence of pepsin proteids are changed into peptone, or peptones. The word is often used in the plural number, because the products arising during the digestion of proteids show considerable variation *inter se*; and this has led physiologists to conclude either that there are several varieties of peptone evolved in the process, or that the same body is encountered in different stages of transformation. The change impressed on a native proteid by its conversion into peptone is probably simply a hydration—a change similar in character to the hydration undergone by starch when it is changed into sugar by diastase. That the change does not involve a profound disturbance of the molecular constitution of the proteid, would seem to be indicated by the fact that the first thing that happens to peptone when it has been absorbed into the blood-current is to be immediately peptonised—that is, to be again restored to the condition of a native proteid (serum-albumen). So quickly does this re-transformation take place, that no peptones can be detected in the lacteals, nor in the blood of the portal vein.

The Curdling Ferment of the Stomach.—Everybody knows that one of the most striking properties of the gastric juice is its power of curdling milk. This property is quite independent of the acid of the gastric juice, and is

effective in neutral and even in slightly alkaline milk. Under the name of rennet, which is simply a brine-extract of the calf's stomach, this property has been known from time immemorial, and has been utilised for the making of cheese. Until quite recently, it was not doubted that the curdling power was an essential attribute of pepsin; but, in 1876, Brücke published a process by which he obtained a pepsin which was strongly proteolytic, but which was powerless to curdle milk. Quite recently, Mr. Benger has made an observation which may be regarded as the complement of that of Brücke. He finds that a concentrated brine-extract of calf's stomach has intense curdling powers, but is almost devoid of proteolytic powers. On the ground of these observations, we are justified in concluding that two distinct ferments have been heretofore included under the old term pepsin—namely, a proteolytic ferment, which peptonises proteids in the presence of an acid, to which the name pepsin should in future be confined—and another ferment, of which the only property now known is that of curdling the casein of milk.

The Medicinal Equivalents of Gastric Juice.—These are so familiarly known as the various and numerous preparations of pepsin, that I need not linger over them. There is no doubt that formerly a number of inert preparations were sold under the name of pepsin, and dispensed to a confiding public; but matters have improved since then; and I have authority for saying that now all the leading brands of pepsin are reliable. Pepsin preparations are especially suitable for administration by the mouth immediately after a meal. Those of you who, from past experience, have lost faith in pepsin, may be encouraged to try again the more active preparations which are now within our reach. A *liquor pepsinæ* prepared by Mr. Benger, of which a specimen is on the table, is a digestive agent of extraordinary power. A teaspoonful of this preparation in six ounces of acidulated water dissolved an ounce of chopped white of egg completely in three hours.

3. PANCREATIC JUICE.—Formerly, the pancreas was held in little esteem as a digestive agent; it was not thought to have any function

except to assist in emulsifying fats. But of late, through the researches chiefly of Corvisart and Bernard in France, and Kühne and Haiden-
hain in Germany, our estimate of the pancreas has been revolutionised. The pancreas is now known to be rich both in the quantity and variety of its digestive ferments. Extract of pancreas—and we may presume also the natural pancreatic secretion—has at least four distinct kinds of action on food-stuffs, namely: 1. It converts proteids into peptones in alkaline media; 2. It curdles the casein of milk; 3. It transforms starch into sugar; and, 4. It emulsifies fats. I shall have a word to say about each of these modes of activity.

Proteolytic Ferment of Pancreas.—This has been named trypsin by Kühne. It differs from pepsin in requiring an alkaline (instead of an acid) medium for the exercise of its powers. Although the action of pepsin and trypsin on proteids is the same in its ultimate result—*i.e.*, both convert proteids into peptones—certain differences have been noted between them, not only in the reaction of the medium suitable to each, but also in their manner of achieving their work, and in the by-products which attend their action. I am also led to believe that an important practical distinction between pepsin and trypsin will prove to be the difference in the facility of their attack on the different kinds of proteids. Thus, I found it more easy to peptonise milk by trypsin than by pepsin; on the other hand, egg-albumen was attacked more energetically by pepsin than by trypsin.

The mutual reactions of pepsin and trypsin, when present together in solution, are of some practical interest. Kühne has stated that pepsin in an acid medium destroys trypsin, but that trypsin in an alkaline medium has no such effect on pepsin. The latter part of this statement is, I believe, incorrect. My own experiments on this point gave the following results. When pepsin and trypsin were infused together in a large dilution of simple water, at blood-heat, they proved mutually indifferent, and retained their respective activities even after three hours' companionship. But when the mixture was acidified with a few drops of hydrochloric acid, the trypsin was speedily

destroyed; and conversely, when the mixture was feebly alkalisied, with sodium bicarbonate, the pepsin was quite as speedily destroyed. But I found, further, that pepsin was destroyed apparently as quickly in the simple alkaline solution, without any trypsin; and similarly, that trypsin was speedily destroyed in the same simple acid solution when no pepsin was present.

These reactions involve a point of practical interest in regard to the medicinal administration of pancreatic preparations. They lead directly to the inference that acid gastric juice is destructive of the proteolytic activity of pancreatic preparations, and that it is useless to administer such preparations by the mouth, unless means be adopted to safeguard them against the action of the gastric acid. It is also plain that some of the new digestive remedies which are being sent out by eminent firms of druggists, and which are recommended expressly on the ground that they contain the combined energies of the gastric and pancreatic juices (two of these are styled respectively peptocolos and peptodyn) are compounded on erroneous principles. Pepsin and trypsin cannot possibly be combined in action. If the two ferments be present together in solution, there is no work to be got from either so long as the reaction is neutral; if you acidify, so as to waken the pepsin into activity, the trypsin is thereby rendered permanently inert; and conversely, if you quicken the trypsin into activity by adding an alkali, the pepsin loses its powers.

The Curdling Ferment of the Pancreas.—The property of curdling milk has hitherto been regarded as the special appanage of the gastric ferment; and I was surprised to find a curdling agent also associated with the pancreatic ferments. All extracts of pancreas, however made, were found to have this power. The action seems identical with that of rennet made from calf's stomach, and takes effect both in neutral and in alkalisied milk.

I found that a piece of perfectly fresh pancreas infused in warm milk had only the feeblest possible curdling power. The extract of fresh pancreas, likewise, when newly prepared was inert, but after the lapse of a few

weeks it became active. In this respect, the curdling ferment shows parallel behaviour with trypsin, and the explanation is probably the same in both cases, namely, that the pancreatic cells do not contain either ferment in a perfect state, but rather in the condition of zymogen or mother-of-ferment. It may be assumed that, in the living animal, the zymogens are converted into active ferments during the process of secretion. In the artificially made extracts, the change takes place more gradually, and is probably of the nature of a slow oxidation.

Pancreatic Diastase.—The pancreas is exceedingly rich in diastase. An aqueous extract of the gland (of which seven ounces represented one ounce of gland-tissue) was found to have about tenfold the starch-converting power of the best malt-extracts. We therefore possess, in pancreatic extracts, an efficient medicinal substitute for saliva in the digestion of starch.

The emulsifying properties of pancreatic juice have long been known; and Bernard demonstrated that this power depended not simply on the free alkali of the secretion, but on the presence of a special ferment.

Medicinal Equivalents of Pancreatic Juice.—There are two pancreatic preparations which have long been before the profession, namely, pancreatic emulsion and pancreatine, both sent out by Savory and Moore. I found that pancreatic emulsion contained no active ferments; they had probably been destroyed by the heat used in the manufacture; but it was the most perfect possible emulsion, and when mixed with water, the milk-like fluid showed no tendency to separate after several days.

The single specimen of pancreatine which I was able to examine was found to have an energetic proteolytic activity, and it also curdled milk; but it had no action on starch, a fact which supplied an unexpected confirmation of the opinion that the four pancreatic ferments are perfectly distinct bodies.

The most complete, active, and convenient medicinal equivalents of pancreatic juice are, however, the liquid extracts of the gland. These may be prepared from the pancreas of the pig, with glycerine, with water, or with brine. The glycerine extract leaves nothing to desire on the score of activity, and it keeps perfectly; but

the taste of glycerine is to some people objectionable, and it seems sometimes to provoke nausea, and even vomiting.

The aqueous extract, as prepared for me by Mr. Bengel, will, I think, prove a valuable preparation. It is simply an extract of the gland in water, with enough spirits added to keep it from decomposition. I propose to call it liquor pancreaticus. A sample of it is on the table before you. It is a limpid, straw-coloured fluid, with very little taste or smell of its own, and of nearly neutral reaction. But though so pale and bland, it is an elixir of really remarkable powers; it curdles milk like rennet; it changes starch into sugar with unrivalled energy; with the aid of a little alkali, it transforms albuminous substances into peptones; finally, it emulsifies fats more perfectly than any other known agent. Extracts of pancreas are destined, if I am not mistaken, to play a considerable part in the dietetic therapeutics of the future. Whether the full powers of these preparations can be made available when administered by the mouth, must be regarded as uncertain. As an aid to the digestion of starch, the propriety of giving them by the mouth cannot of course be doubted; but the propriety of giving them by the mouth as proteolytic agents is a less simple question, seeing that it requires the addition of an alkali to bring the trypsin into activity; and the addition of an alkali is an interference with gastric digestion which may, or may not, be advantageous in a particular case. I commenced to employ pancreatic extract by the mouth about two years ago, and have now had considerable experience of its use. Guided by theoretical considerations, I have usually directed the dose (a teaspoonful) to be given, with twelve or fifteen grains of bicarbonate of soda, one and a-half or two hours after a meal, when gastric digestion might be supposed to be approaching its termination, and the later portions of the meal to be passing into the duodenum. There is at this late period of digestion a tendency to excess of acid in the stomach, and the alkali alone is undoubtedly of service; but I have had, in several instances, striking results from the combination of the extract with the alkali, which I had previously failed

to obtain from the alkali alone. I am, therefore, pretty strongly convinced that, by administering a pancreatic preparation towards the tail of gastric digestion, you can, under the guardianship of a dose of alkali, convey it into the duodenum, where it arrives opportunely to aid in the important work of intestinal digestion. But, however useful pancreatic extracts may prove to be for administration by the mouth, I anticipate far more important results from their employment in the preparation of peptones and peptonised aliments; and to this subject I now beg to call your attention.

(To be continued.)

Book Notices.

On the Sounds of the Heart in Health and Disease. By GEORGE PATON, M.D.

A Clinical Lecture on Tubercular Leprosy at Rush Medical College, Sept. 28, 1879. By JAMES NEVINS HYDE, M.D.

Case of Congenital and Progressive Hypertrophy of the Right Upper Extremity. By WILLIAM OSLER, M.D., M.R.C.P., Montreal.

Some Important Topical Remedies, and their Use in the Treatment of Skin Diseases. By JOHN V. SHOEMAKER, A.M., M.D., Philadelphia.

A Contribution to the Study of the Bullous Eruption induced by the Ingestion of Iodide of Potassium. By JAMES NEVINS HYDE, A.M., M.D.

A Case of Complete Inversion of the Uterus, with Remarks upon the Modern Treatment of Chronic Inversion. By CLIFTON E. WING, M.D., Boston.

Vick's Illustrated Floral Guide.—A beautiful work of 100 pages, one coloured flower plate, and 500 illustrations, with descriptions of the best flowers and vegetables.

Œsophagismus: A Typical Case of True Spasmodic Stricture of the Œsophagus Re-

sembling Organic Stricture, completely Cured by the passage of a full-sized Œsophageal Sound. By J. J. HENNA, M.D.

The Pathology and Treatment of Venereal Diseases. By FREEMAN J. BUMSTEAD, M.D., LL.D. Fourth edition. Revised, enlarged, and, in great part, re-written by the author, and by Robert W. Taylor, A.M., M.D. Philadelphia: Henry C. Lea, 1879; Toronto: Hart and Rawlinson.

Since this edition of, in every sense of the word, a standard text-book on venereal diseases appeared, its talented author has passed over to the majority. After a life of professional success and usefulness, he has given to the world a revised edition, containing the result of his experience, reading and skill up to the last moments of his life. His book is too well known—by three former editions—as excellent throughout to need much comment from us. Dr. R. W. Taylor has been an associate with the author in the revision of the work. One new feature is the addition of the metric system to the many formularies, a change that we cannot say we admire, and fancy will not add greatly to its attractiveness. Still, this is a minor point, that in no way impairs the value of a work that is so thoroughly an exponent of the views of the talented American author on the pathology and treatment of syphilis.

A Text-Book on Physiology. By MICHAEL FOSTER, M.A., M.D., F.R.S. Third edition. Revised. London and New York: Macmillan & Co., 1879. Toronto: Willing and Williamson.

The fact that this popular work on Physiology has already passed through the third edition is in itself a sufficient evidence that it has been well received by the professional public, without any commendatory reference from us. The man who undertakes to write upon the subject of physiology in these days, when there are so many deservedly popular standards upon the subject, sets before him a task of no trifling import. The author of this book can, however, fairly claim to have rendered valuable service in the domain of

physiological research. The matter is very well arranged, and the style is perspicuous, and, at the same time, concise. We could wish, however, in the case of this, as well as many other scientific works, that the authors had been content to adopt a simpler form of expression in many cases. One of the prominent errors, in our judgment, into which the writers of to-day tend to fall, is that of substituting for some time-honoured and well understood expression or word a newly-coined one. This strikes us as objectionable in two particulars. It frequently happens that the new word or expression does not as fully convey the idea in the mind of the writer as the old one; and, in addition, it is a source of embarrassment to the reader often, to understand the meaning intended.

The introductory chapter discusses in a most interesting way the subject of "protoplasm," as seen in the *amoeba*, its properties, and its relation to animal life.

The author then takes up the consideration of blood, and gives a pretty exhaustive account of this most important element in the nutrition and growth of the human body. While there is nothing new, that we have observed, in the author's method of treating the subject, we are bound to say that what he has not told us is not worth knowing.

His treatment of the subject of muscle is to us somewhat unique, but, on this account perhaps, none the less interesting. He considers muscle under the designation of "contractile tissues;" and although he omits altogether the minute anatomy of this structure, the author gives some very interesting thoughts upon nervous influence in relation to muscle, entering largely into this branch of the subject. On the various effects of electrical currents upon muscle the author's observations are at once instructive and comprehensive.

The nervous system receives a comparatively scanty notice in itself, although much incidental information is conveyed upon this important branch of physiological inquiry in the author's discussion of the various organized tissues of the body. What he characterizes as the "vascular mechanism" very judiciously, we think, claims a large share of the writer's consider-

ation. This is a branch of physiological inquiry which, above all others in our judgment, can be turned to account every day by the earnest professional man. The author, fully appreciating this fact, has bestowed great care upon the consideration of this most important question: and we are assured that he has rendered good service in its elucidation.

We have perused this work with a great deal of satisfaction. For the advanced student it will be found to contain a large amount of information, and be very helpful in the prosecution of this branch of study. It is, perhaps, all that could be expected in a work of its compass. It would be impossible for any author, within the limits of this book, to give anything like an exhaustive account of the subject in *all* its details. We think, therefore, that it deservedly claims a high place among works on physiology; and it will be found to be a valuable addition to the literature of this most important subject.

At the end of the book there is an appendix, devoted to the consideration of the "Chemical basis of the animal body," which will be found to contain a large amount of information, such as will contribute very materially to the interest and value of the work to the advanced student.

FORMULÆ FOR CHILBLAINS.—

R Sulphuric acid ʒj.
Spirit of turpentine ʒj.
Olive oil..... ʒij.

Mix the oil and turpentine first, then gradually add the acid. To be rubbed on two or three times a day.

II.

Lard..... ʒiv.
Turpentine ʒj.
Camphor ʒij.
Oil of rosemary mxv.

Rub in with continued friction.

III.

Yellow wax ʒij.
Olive oil..... ʒij.
Camphorated oil ʒij.
Goulard extract ʒjss.

Melt the wax with the oil, then add the camphorated oil and Goulard extract.

The two first are for the unbroken, and the last for the broken chilblains.

Meetings of Medical Societies.

HAMILTON MEDICAL AND SURGICAL SOCIETY.

The Annual Meeting of the Hamilton Medical and Surgical Society was held on the 6th inst. The following officers were elected for the present year: Dr. Malloch, President; Dr. Loche, Vice-President; Dr. Woolverton, Sec.-Treasurer (re-elected). A vote of thanks was tendered the Secretary and retiring officers.

Dr. Mills presented a full-time foetus, which at birth made an effort to breathe, but perished in the attempt. On examination it was found that there was a hernia of the diaphragm allowing the great bulk of the intestine to gravitate into the right chest cavity. A part of the liver was found almost separated by the constricting diaphragmatic band, also lying in the chest cavity. The other appearances were comparatively normal, except a condition of the hands, which were bent upon the wrist, similar to what is seen in club feet.

Dr. Mullin then read a paper on "Malarial and Typhoid Fevers."

He referred to the descriptions given by Flint and Aitkin of simple continued fevers, called also febricula, the temperature suddenly rising to 4°, 5°, or 7° above the normal, lasting 24 to 36 hours, and then generally falling rapidly to the normal, though in some cases the decline is more gradual, not attaining the normal for several days. He pointed out that malarious fevers corresponded with this in the sudden rise of the temperature at the outset, and that the elevation was generally much higher on the first or second day of the disease than is ever found at such an early date in typhoid.

He noticed the fact that sometimes in a case of intermittent fever the intermission might not be well marked, and referred to a case falling under his observation, where for the first four days there was severe gastro-intestinal derangement, upon the control of which the intermittent form of the fever was apparent. The writer expressed his belief that remittent fever may have occurred in former times in this locality, when malarious influences were more

potent, as it is now said to occur in some very malarious parts of the country; but it is quite probable that cases of typhoid, running perhaps an irregular course, are often improperly designated bilious or remittent fever. He referred to the descriptions given of remittent fever by various writers, who showed that this form of fever resulted from more intense malarial action, and was consequently of more severe form than an intermittent. Hence the forms of fever occurring in this locality, extending over a period of three weeks, and not attended with a high temperature, and but little influenced in their duration by quinine, could not be properly called remittent. He gave a brief account of several cases, some of which were isolated, others occurred in families in which at the same time cases of typhoid fever existed, attended with the usual complications. He gave some particulars of one case where the temperature at no time reached a high degree, and the fever seemed to be progressing favourably, until at the end of the second week thrombosis occurred in the left femoral vein, followed in about ten days with the same in the right thigh; afterwards there was inflammation of both parotid glands, and the case ended fatally in the sixth week.

He pointed out that malarial fevers occurred to the greatest extent in the spring and summer months, while these forms of fever prevail from August to the close of the year; and that while cases of malarious fever were sometimes seen, in which the temperature did not rise to a very high degree, these differed from the mild cases of typhoid, in being readily cut short by quinine. He also pointed out that typhoid fever in some cases ran a mild course for a time, and then presented some of the severe complications; cases sometimes ending fatally where the patients in the early part of the illness visited the office of physicians under the impression that they were suffering from dumb ague.

THE FIFTY-SECOND ANNUAL MEETING OF GERMAN NATURALISTS AND MEDICAL MEN.—In the Pathological department, Professor Recklinghausen spoke of "Hyalin," a body which is some form of fibrine, and which was described recently by Langhaus as "canalised

fibrine." This substance, which is of hyaline structure, is found either in the lumen or in the wall of small arteries, and in areolar tissue in different pathological processes: thus it is found in the kidney in cases of senile gangrene; it is found in aneurismal sacs and in diphtheritic membranes; it is identical with Gull and Sutton's capillary fibrosis, and is evidently related to amyloid degeneration. Experiments on frogs have led Professor Recklinghausen to believe that hyaline is altered cell-protoplasm, which leaves the cell without the latter undergoing any material changes. Dr. Marchand described some cases of fatal poisoning by chlorate of potash; in all these cases large doses had been administered. The blood in all these cases showed a chocolate colour, due to the presence of methæmoglobin. The urine was albuminous, and contained altered blood, and the renal tubes were found filled with casts composed of altered blood-corpuscles.

Amongst the subjects discussed in the Medical section I will briefly allude to the following:—"Faradisation of the Stomach in cases of Dilatation and Catarrh of the Stomach." The method consists in introducing one insulated electrode, which is attached to the tube of the stomach-pump, into the stomach, and applying the other electrode to any part of the body. Though it is very doubtful whether, in this case, the walls of the stomach really contract, yet both Kussmaul and Ziemssen expressed themselves in high terms as to the benefit to be derived from the methodical application of electricity in such cases. Several papers were read on the therapeutic value of digestive ferment. Trials with the different preparations found in trade showed that nearly all German preparations were inert, while the only English preparation which was tested gave satisfactory results. Professor Kussmaul, finding that pepsine was always present in the gastric juice, even in very inveterate cases of gastric catarrh, does not believe that the administration of pepsine can be of much use. None of the speakers and experimenters seem to have attacked the subject from the practical point of view, such as has recently been done by Dr. William Roberts, of Manchester, who succeeded in completely peptonising milk with properly prepared pancreas extract, and who has thus opened out quite a new line of treatment for gastric disturbances. Pancreatic digestion is evidently beginning to interest the therapeutists as well as the physiologists.—*Lancet*.

Miscellaneous.

McGill Medical College has 164 students this year—46 of these are freshmen.

JOURNALISTIC.—We have received No. 1, Vol. I., of the *Alienist and Neurologist*, published quarterly at St. Louis, U.S. Dr. C. H. Hughes, Editor. From the reputation of the editor, as well as from the appearance and contents of the first number, we think the journal will be a decided success.

APPOINTMENT.—William Eli Smith, of the town of St. Thomas, Esquire, M.D., to be an Associate Coroner in and for the County of Elgin.

VERRUCA.—Warts are often very troublesome, and refuse to disappear under acetic acid, muriate of ammonia, etc.; and I would call attention to their removal by means of the dermal curette, as has been advised in Vienna. This spoon-shaped instrument must be tolerably sharp, and by a careful kind of cutting movement around the wart it may be removed bodily, leaving a slightly depressed surface which bleeds a little; as this heals, perfect epidermis is formed, with no scar, and the wart generally remains absent. The little operation is hardly at all painful. I have experienced it on my own person, and have removed warts from children by it without their hardly knowing that it was done.

CUTANEOUS ERUPTIONS PRODUCED BY CHLORAL.—Martinet (*Thèse de Paris*, 1879) arrives at the following conclusions: 1. The ingestion of chloral excites, in a certain number of individuals, an exanthematic eruption, which may be called chloralic erythema, a sort of scarlatiniform eruption. Some observers have described urticarial and purpuric chloral rashes. 2. The erythema from chloral is seated chiefly upon the face, neck, and front of the chest, neighbourhood of the larger articulations on the extensor surface, backs of the hands and feet, etc. It appears after meals or after drinking alcoholic liquors. Most frequently fever is absent and the duration of the eruption

is brief. 3. It is accompanied by dyspnoea and by cardiac palpitations, often severe. 4. It occurs in persons predisposed to its influence. 5. It seems to be due to vaso-motor paralysis, as also are the dyspnoea and palpitations which accompany it. In a number of cases recently reported to the Société Clinique, by Mayor, and those noted by Martinet, the eruption seemed to relapse from time to time, even after the discontinuance of the chloral.

METHOD OF PRESERVING DEAD BODIES.—

Mr. Keysmann, United States Consul General at Berlin, in his dispatch to the Department of State, dated October 30th, communicates a description of a newly discovered process for the preservation of dead bodies. The inventor or discoverer had secured a patent for the process, but the German government, conceiving the high importance of the invention, induced the patentee to abandon his patent. Thereupon the government made public, through the press, a full description of the process, as set forth in letters patent. The following extracts are translated from the German newspapers of Oct. 23rd: The dead bodies of human beings and animals, by this process, fully retain their form, colour and flexibility. Even after a period of years such dead bodies may be dissected for purposes of science and criminal jurisprudence. Decay and the offensive smell of decay are completely prevented. Upon incision the muscular flesh shows the same appearance as in the case of a fresh dead body. Preparations made of the several parts, such as natural skeletons, lungs, entrails, etc., retain their softness and pliability. The liquid used is prepared as follows: In 3,000 grams of boiling water are dissolved 100 grams of alum, 25 grams of cooking salt, 12 grams of saltpetre, 60 grams potash and 10 grams arsenious acid. The solution is then allowed to cool and filter: to 10 litres of this neutral colourless, odourless liquid, 4 litres glycerine and one litre methylic alcohol are to be added. The process of preserving or embalming dead bodies by means of this liquid consists, as a rule, in saturating and impregnating the bodies with it. From $1\frac{1}{2}$ to 5 litres of

the liquid are used for a body, according to its size.—*Med. and Surg. Reporter.*

TOXIC EFFECTS OF TEA.—1. With tea, as with any potent drug, there is a proper and improper dose. 2. In moderation, tea is a mental and bodily stimulant of a most agreeable nature, followed by no harmful reaction. It produces contentment of mind, allays hunger and bodily weariness, and increases the incentive and the capacity for work. 3. Taken immoderately, it leads to a very serious group of symptoms, such as headache, vertigo, heat and flushings of body, ringing in the ears, mental dullness and confusion, tremulousness, "nervousness," sleeplessness, apprehension of evil, exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, increased respiration. Each of the above symptoms is produced by tea taken in immoderate quantities, irrespective of dyspepsia or hypochondria, or hyperæmia. The prolonged use of tea produces, additionally, symptoms of these three latter diseases. In short, in immoderate doses, tea has a most injurious effect upon the nervous system. 4. Immoderate tea drinking, continued for a considerable time, with great certainty produces dyspepsia. 5. The immediate mental symptoms produced by tea are not to be attributed to dyspepsia. In the above experiment upon myself, the whole group of symptoms was produced, with no sign of digestive trouble superadded. 6. Tea retards the "waste," or retrograde metamorphosis of tissue, and thereby diminishes the demand for food. It also diminishes the amount of urine secreted. 7. Many of the symptoms of immoderate tea drinking are such as may occur without suspicion of tea being their cause; and we find many people taking tea to relieve the very symptoms which its abuse is producing.—*Journal of Nervous and Mental Disease.*

Births, Marriages, and Deaths.

MARRIED.

At Chatham, on January 7th, A. E. Mullory, M.D. L.R.C.P. and L.R.C.S., Ed., to Fanny Q. W. Waddell, daughter of the late John Waddell.

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THE
Canadian Journal of Medical Science.

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U. OGDEN, M.D.,
EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London,
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TORONTO, MARCH, 1880.

Selections: Medicine.

LATENT ALBUMINURIA: ITS ETIOLOGY AND PATHOLOGY.

BY GEORGE JOHNSON, M.D., F.R.S.,

Professor of Clinical Medicine; Senior Physician to King's College Hospital.

It is a matter of common and in fact everyday observation, that the urine of persons apparently in perfect health is often found to contain more or less albumen. The discovery of what had been a latent and unsuspected albuminuria is often made by accident. Within the last twenty years, at least half-a-dozen members of our profession have come to me with essentially the same statement, which was to this effect: "I was testing some albuminous urine, when it occurred to me to compare the action of the tests upon a presumed healthy specimen. I therefore tested my own urine; and to my dismay, I found it highly albuminous." During the last few months I have been consulted by three men, each of whom believing himself to be in good health, and having proposed an insurance on his life, had been found to have albuminuria by the medical adviser of the insurance-office. Quite recently, an apparently healthy young man told me that, seeing his medical brother testing some albuminous urine, he said to him jokingly, "You may as well test mine"; and the result was that it was found to contain an abundance of albumen. About the same time, a surgeon called on me and said that he had been made very anxious by the accidental discovery that one of his children had albuminuria. The eldest son, who was studying prac-

tical chemistry, had busied himself in testing the urine of every inmate of the house, when he discovered that a younger brother, apparently in good health, and attending a day-school, had albuminuria.

These are a few instances out of a large number that have come under my observation in which the existence of albuminuria, heretofore latent and unsuspected, has been discovered as it were by accident.

The attention of the profession has recently been especially directed to the subject, of what I propose to call latent albuminuria by several physicians, especially by Dr. Moxon (*Guy's Hospital Reports*, 3rd series, vol. xxviii), by Dr. Clement Dukes (*British Medical Journal*, Nov. 30th, 1878) and by Dr. Saunby (*British Medical Journal*, May 10th, 1879; also *Birmingham Medical Review*, July and October, 1879). My main object in this communication is to maintain, first, that this latent albuminuria—albuminuria, that is, unassociated with any other evidence of functional disorder or structural disease—may, by a careful inquiry, be traced back, in a very large proportion of cases, to some probable exciting cause; secondly, that the presence of even the smallest trace of albumen in the urine is always pathological, never physiological, as I have somewhere seen it suggested that it may be; and that the neglect of this indication of a pathological condition and tendency, especially such negligence as involves repeated exposure to the exciting cause, may convert a temporary and occasional into a persistent albuminuria, which sooner or later, though it may be after many years, will result in a fatal disorganization of the kidney.

In prosecuting the important practical inquiry into the probable cause of a recently discovered albuminuria, we shall not unfrequently come upon a history more or less clear and definite of an acute nephritis, either with or without dropsy, dating back for a period varying from a few months to several years. The acute renal disease may have been the result of exposure to cold and wet, or it may have occurred in connection with one or other of the following diseases: scarlet fever, measles, diphtheria, erysipelas, typhus or typhoid, pyæmia, rheumatic fever, etc.; or it may have been associated with the puerperal state, either before or after parturition. The acute symptoms having passed away, convalescence has appeared to be established; but, in some cases, the patient having been kept under careful observation, the albuminuria has been found to continue for months and years. In other cases, there has been a less careful and prolonged observation, and the history, therefore, is less complete. Convalescence having been apparently established, no further examination of the urine had been made until after an interval of months or years, when albuminuria is found to be present, and there is great reason to believe that it has continued from the time of the previous illness. The practical lessons to be deduced from facts, such as these, which are matters of every-day observation, are: 1. To test the urine for albumen repeatedly during the progress of all febrile and inflammatory diseases until convalescence has been completely established; 2. When, in the circumstance referred to, albuminuria has been found to exist, to keep the patient under observation, and to test the urine until it has been found continuously free from albumen; care being taken to test for albumen not only after rest in bed and before breakfast, but after food and exercise. As a general rule, it will be found that, whatever may be the cause of the albuminuria, the albumen is twice as abundant after food and exercise as before breakfast; and I have met with a considerable number of cases in which the urine before breakfast having been free from albumen, is found to be more or less copiously albuminous after food has been taken. In all cases, therefore, of actual or suspected albumin-

uria, I ask to be supplied with two specimens of urine: one passed on rising in the morning, the other secreted two or three hours after a meal. In some exceptional cases, food has less influence than exercise on the production of albuminuria. A distinguished London physician, whose successful career was cut short by degeneration of the kidneys, found that, at the onset of his malady, albumen appeared only occasionally after walking exercise, when it was present in large amount. Food at the commencement appeared to have no influence on the production of albuminuria; but after a time there was persistent albuminuria, and ultimately death from uræmia.

In another class of cases of latent albuminuria, there is no history of any previous illness to explain the renal disorder. Dr. Dukes in the paper before referred to, speaks of the common occurrence of such cases amongst the boys at public schools. From a careful inquiry into cases of this kind amongst boys and young men, I am convinced that one of the most frequent causes of this form of albuminuria is the reckless manner in which they often expose themselves to cold and wet, especially after being overheated and fatigued by prolonged or violent exercise. A boy plays at cricket or football, or runs a long race, and then, while tired and perspiring, and while the products of disintegrated tissues are abundantly present in the circulation, he stands about until he is chilled, or he lies down upon the damp ground; and if, as sometimes happens, an attack of acute pneumonia or renal dropsy quickly follow, the illness is at once recognised and traced to its obvious exciting cause; but if the only result be albuminuria without obvious disturbance of the general health, the mischief may remain latent for any indefinite period, and when at length it is discovered, it may with difficulty be traced back to its originating cause.

Another not uncommon cause of albuminuria in young men and boys is imprudently prolonged cold bathing. In the *Transactions of the Clinical Society*, vol. vii., p. 42, I have given particulars of four cases of temporary albuminuria excited by cold bathing. Since the publication of that paper, I have met with several cases of confirmed degeneration of the

kidney clearly traceable to repeated and prolonged cold bathing. The last case of this kind I saw lately with my friend and former pupil, Mr. Alfred J. Bell, of St. John's Wood. A young man aged 19, in the summer of 1878, after bathing repeatedly in Teddington Lock, noticed that his urine became "almost as black as ink." This was probably hæmaturic; but no chemical examination of the urine was made. The dark colour passed away after a few days, and he had no symptoms of illness. He continued to take active exercise—fishing, shooting, and bicycling; and seemed to be in good health until near the end of October, 1879, when considerable dropsical swelling of the legs occurred. The urine was then found of normal colour, of specific gravity 1020, albuminous to the extent of one-half, and deposited a sediment in which were found numerous hyaline and oily casts. In tracing back the history of this case, we found good reason to believe that the renal disease commenced eighteen months ago with congestion of the kidneys and hæmaturia excited by cold bathing, and that the albuminuria has continued from that time until the present. This case is a type and illustration of many others that have come under my observation. Thus, in one case, albuminuria in a previously healthy young man was a result of wading through a river up to the shoulders at the end of a twenty-mile walk; and in another it was excited by swimming his horse through a river in fox-hunting, and allowing his wet clothes to dry upon him and to chill him. From what I have seen of the effects of cold bathing, I have arrived at the conclusion that more people are injured than are benefited by the practice; and I am confident that, if the urine of all men, women, and children who paddle about in the sea until they are blue and cold were tested within a few hours after their immersion, it would be found to be more or less albuminous in a large proportion of cases.

Amongst the common causes of albuminuria, more or less copious and persistent, but for a time unattended with local uneasiness or serious disorder of the general health, and therefore often latent, is an excessive consumption of animal food and alcoholic stimulants, either separately or combined, as not unfrequently

happens. The kidney is the channel by which large amount of excrementitious nitrogenous material, whether the product of disintegration of tissue or of imperfectly digested and unassimilated food, is eliminated. The chain of events which connects albuminuria with overfeeding and dyspepsia is probably this. Imperfectly digested food passes into the blood and loads it with impurities. The gland-cells of the kidney excrete these ill-digested products, and, in doing so, undergo structural changes; while the imperfectly assimilated albuminous materials pass more readily by exosmosis through the Malpighian capillaries. Further, the malnutrition resulting from chronic dyspepsia causes a general nervous exhaustion, with loss of vaso-motor nerve-force, and consequent diminution of tone and contractile power in the muscular walls of the arterioles generally, including those of the kidney; while the walls of the capillaries are probably weakened by depraved nutrition. Thus the filter and fluid to be filtered are both materially changed; while the increasing impurity of the blood throws more work upon the kidneys and favours the escape of the altered albumen, which is often much increased after food.

Alcoholic intoxication may alone be a cause of temporary albuminuria. In my *Lectures on Bright's Disease* (p. 41), I have described the case of a man whose urine during a fit of alcoholic narcotism (dead-drunkness) was loaded with albumen, which in a few hours had entirely passed away; and quite recently a similar case was under my care in the hospital. In my private practice, I have seen a number of cases in which albuminuria associated with habitual alcoholic excess has passed away more or less speedily when the patient has been for a time frightened or persuaded into total abstinence, and has again returned under the influence of an immoderate consumption of alcohol.

There is yet another class of cases in which albuminuria is a result of inveterate dyspepsia in persons of strictly temperate habits. In these cases, we often find that for months, and even for years, there have been symptoms of impaired digestion, such as pain or uneasiness after food, flatulent distension of the stomach

and bowels, occasional nausea and vomiting, habitual looseness or irregularity of the bowels, constipation and diarrhoea sometimes alternating. With this there is often turbidity of the urine, which is high-coloured, excessively acid, and deposits urates or oxalates abundantly. After a time, the urine, which had been scanty, becomes more copious, of pale colour, of low specific gravity, and is found to contain albumen, and to deposit a cloudy sediment, in which are found small hyaline and granular casts. In such cases, renal congestion and albuminuria, and ultimately structural degeneration, result from the long-continued elimination of some products of faulty digestion through the kidneys. Analogous to this is the not infrequent occurrence of albuminuria and renal degeneration as a consequence of the persistent excretion of large quantities of sugar in cases of diabetes. It appears, then, that imperfect digestion, the result of functional disorder of the stomach or the liver, may lead to over-stimulation of the kidney, resulting in albuminuria, and ultimately in serious degeneration of the gland.

We have another illustration of the influence of a primary disorder of the liver resulting in a secondary disturbance of the kidney in the appearance of renal epithelium and tube-casts, with sometimes more or less albumen in the urine, excited by the excretion of bile-products by the kidney in cases of jaundice. This fact, which was, I believe, first pointed out by me in my book on *Disease of the Kidney* (p. 108), published in 1852, I have somewhere seen referred to as a recent German discovery.

As the dyspepsia which is associated with albuminuria, is often excited or greatly aggravated by the abuse of alcoholic stimulants, so I have no doubt that excessive tobacco-smoking is an occasional, though probably a much less frequent, cause of a primary hepatic and gastric disorder, with inveterate dyspepsia, leading on, in the manner before described, to renal irritation and congestion with albuminuria, and finally in some instances, to irremediable degeneration of the kidneys.

Dr. Clifford Allbutt has directed attention (*British Medical Journal*, February, 1877) to the influence of mental anxiety in causing

granular degeneration of the kidney. I do not agree in opinion with Dr. Allbutt that "mental anxiety is one of the chief, if not the chief, cause of granular kidney"; but I believe that there is a real etiological relation between mental anxiety and some cases of albuminuria; and I have often seen, in cases of chronic renal disease, a great increase of albumen under the disturbing influence of mental emotion. In my own experience, however, saccharine diabetes has much more frequently than albuminuria been traceable to mental and emotional influences; and it has appeared to me that as, in the diabetic cases, the saccharine urine, whether in the rabbit whose medulla oblongata has been mechanically irritated by the operator's needle or in the human subject whose brain has been tortured by mental anxiety, the primary influence of the nerve-disorder is upon the sugar-forming liver, so, in an analogous manner, the albuminuria which results from mental anxiety is a secondary result of a nervous influence acting primarily on the liver and the stomach, the so-called chylopoietic viscera. In fact, it seems to me that the albuminuria which appears to have resulted from mental and emotional influences is a form of albuminuria from dyspepsia, and the immediate cause of the renal disorder is the excretion of some abnormal products of imperfect digestion. In many of these cases, too, it is obvious that more than one etiological agency has been operative. The man or the woman depressed by mental anxiety, with a failing appetite and disturbed sleep, often seeks temporary relief from misery in an alcoholic stimulant; and so it is often found that the noxious influence of alcohol as a substitute for wholesome food has to be taken into account in explaining the albuminuria and the renal degeneration which had their starting-point in mental worry.

We now come to our second proposition, which is that the presence of albumen in the urine, although small in amount, and appearing only occasionally in the urine of persons otherwise apparently in good health, is abnormal and pathological. The main point of the practice, therefore, is to make diligent inquiry for the probable cause of this abnormal condition; and then, having ascertained it, we can instruct our

patient how both to avoid the exciting cause and counteract its effects. It is sometimes difficult to convince a man or a boy, who but for his doctor's statement that his urine misbehaves itself under the influence of heat and nitric acid, would believe himself in perfect health, that it is necessary for him to submit to any restraint in his diet or general mode of living. It therefore becomes necessary to explain to him what may be the result of negligence in this matter. The result of my experience is, that the occasional appearance of even a small amount of albumen after food and exercise or exposure to cold, if not traced to its exciting cause, and if the cause be not such as can be avoided or counteracted, will almost certainly, at no distant period, become a persistent albuminuria; and persistent albuminuria leads on sooner or later to fatal degeneration of the kidney. It is true that many years may pass before the renal disease begins to react upon the general health. The most protracted case of the kind that has come under my own observation occurred in a hard-working general practitioner, who, when fifteen years of age, had dropsy after scarlet fever. He recovered from the dropsy, and believed himself to be well. Five years later, he was a medical student; and while he and some of his fellow-students were engaged in testing each other's urine, his was found to be albuminous. The albuminuria continued until his death from uræmia, at the age of forty-five; yet, until within a few months of his death he was in fairly good health and actively engaged in a large practice. Here, then, was an interval of thirty years between the beginning and the end of the fatal malady, yet during the whole of that period, it might have been said of him "*hæret lateri lethalis arundo.*" In another case, an interval of nine years elapsed between recovery from acute renal dropsy, but with persistent albuminuria and oily casts, during which the general health appeared to be quite unaffected. Then came an attack of hemiplegia and a series of uræmic symptoms, ending in fatal coma, ten years after the commencement of the disease. A considerable number of cases have come under my observation at a late period of a chronic disease, in which there has been reason to believe that, albuminuria having

persisted after an acute attack long before, there has been an interval of from ten to fifteen years between the commencement and the fatal termination of the malady. Since then, the only probable result of a neglected and persistent albuminuria is a fatal degeneration of the kidney, with the multifarious miseries resulting from uræmic poisoning, it is obviously of the highest importance to impress upon the patient the necessity for a continuous systematic treatment, dietetic, hygienic, and medicinal, adapted to the circumstances of each case. As a general rule, it will be found that, *cæteris paribus*, the earlier the patient is subjected to treatment after the onset of the symptoms, the more speedy and complete is the success; but we sometimes have the satisfaction of witnessing a complete recovery after a very long continued albuminuria. One of the most satisfactory cases of recovery after a long duration of threatening symptoms was that of a very distinguished medical graduate of London, who, when he consulted me in November, 1877, was twenty-six years of age. His urine had been continuously albuminous after food since an attack of scarlet fever in June, 1871. In spite of the anxiety which this symptom had occasioned, his general health had been good, and he had worked hard and obtained the highest honours at the university. I advised him to place his main reliance upon a carefully regulated diet. Under the influence of an exclusive milk-diet for five or six weeks, the albumen had much diminished. He then took a small quantity of solid food; and, after a time, a two-ounce glass of Hunyadi Janos water every morning, which, acting rather freely on the bowels, relieved him of a dull pain before felt in the region of the liver, and still further reduced the amount of albumen. During the month of July, 1878, the albumen disappeared; and for the last eighteen months there has been no recurrence of the symptom. In this case, then, albuminuria of seven years' duration has been completely removed, and I have lately seen the former patient in perfect health. The complete recovery of health after so long a continuance of the symptoms may afford encouragement to those who are engaged in the treatment of these troublesome and anxious cases. On the subject of treatment, I shall have something to say on a future occasion.—*British Medical Journal*,

CIRCUMSCRIBED PHLEGMONOUS DERMATITIS, DUE TO IODIDE OF POTASSIUM.

BY LOUIS A. DUHRING, M.D.

The patient, a woman sixty years of age, had been referred to Dr. Duhring, by Dr. T. C. Rich, on September 29th, 1879. She had been under treatment for rheumatism during some weeks previously, for which five-grain doses of iodide of potassium, with wine of colchicum, had been administered. About a fortnight before she had come under observation a singular eruption had made its appearance upon the forehead, in the form of a slightly inflammatory annular patch, half an inch in diameter, consisting of a number of pin-head-sized vesiculo-pustular lesions, and resembling an irritated example of ringworm. This had extended rapidly, so that in the course of four or five days it had attained a diameter of an inch and a quarter, and was accompanied by considerable thickening and infiltration, the pustular lesions having become more deeply seated, larger and more prominent. About this time, a similar but more deeply seated inflammatory patch appeared on the left cheek, studded with numerous pin-head-sized pustular foci of apparent suppuration. A third and fourth lesion manifested themselves on either side of the nose.

When first seen by Dr. Duhring the disease was at its height. The original lesion had reached a diameter of nearly two inches, and was a circumscribed, at points sharply defined, irregularly rounded, elevated, firm, thickened, inflammatory, reddish, violaceous patch. Its centre was a crusted, irregular depression, of a lighter colour, and covered with a brownish crust, where the process was evidently subsiding. Over the patch, especially about the periphery, were numerous deep-seated, yellowish, large pin-head-sized, apparently sebaceous, pustular lesions, which had their seat manifestly in the middle and lower strata of the skin, evincing no disposition to rupture. These lesions were conspicuous, and presented a mammillated acne-form appearance on the cheek, where the patch was nodular, of a cherry red or violaceous colour, with a slight inflammatory

areola, while on the forehead they had, in some places, coalesced, giving the patch here situated a carbuncular look. The lesion on the ala nasi was the size of a large pea, sharply circumscribed, markedly raised, mammillated, and covered with a yellowish, tenacious deposit or coating, giving it a button-like or fungoid form. The fourth lesion was insignificant. When pricked or cut into, all the yellowish pustular points bled, but did not exude their contents, thus differing from ordinary pustules. The patient stated that the process had begun with itching, but that lately this had disappeared and had been replaced by a throbbing pain.

The patient was admitted to the hospital, and the iodide of potassium and colchicum mixture suspended. No local treatment was ordered. Two days later the disease presented an aggravated appearance, but there was otherwise no change. The following day a diminution in the colour was noted, and the next day a disposition to desiccate and a decrease in size. From this date the amelioration was rapid, and the patient was discharged, quite well of the skin disease, at the end of a fortnight.

In commenting upon the case, Dr. Duhring said that when the patient first came under observation there was no history of the administration of iodide of potassium, and that the diagnosis had rested, in his mind, between two diseases, viz.: dermatitis, from the internal use of bromide of potassium, and an undescribed disease presenting very similar clinical features, of which he had recently seen a well-marked example in the ward for skin diseases of the Philadelphia Hospital, a full report of which was in preparation. Iodide of potassium had not occurred to him as a cause, having never encountered or heard of a similar eruption following the use of this drug. Some years ago (in 1869), when in London, Dr. Duhring had been taken by the late Dr. Tilbury Fox to see the case of an epileptic boy, under the care of Dr. Cholmeley, who was found to be suffering from a very extensive inflammatory eruption, in the form of palm-sized, raised, infiltrated, painful patches, involving, chiefly, the sebaceous glands. This eruption was determined to be due to the bromide of potassium, which the

boy had been taking. This case was subsequently reported. A similar one may be found in the Sydenham Society's plates of skin diseases. Both of these eruptions were due to the bromide of potassium; the peculiarity of the present case lies in the fact that the manifestation is due to the iodide, and not the bromide of potassium.—*Medical and Surgical Reporter.*

THROMBOSIS OF PORTAL AND SPLENIC VEINS; RAPID FILLING OF THE PERITONEAL CAVITY; GENERAL PERITONITIS.

BY A. A. SMITH, M.D., NEW YORK.

Lieut.-Gen. T., while in Washington the latter part of February, 1879, as he was about to leave the house where he was staying to go to a dinner party, was suddenly attacked with hæmatemesis, vomiting, it was said, more than a quart of dark blood. In two weeks from this time he recovered his strength sufficiently to leave Washington and come on to New York. Previous to the attack of hæmatemesis, he represented himself, and evidently believed himself, to be in good health, but his friends had for some months observed appearances of bad health. On his arrival in New York he consulted Prof. Austin Flint, who found the spleen greatly enlarged and tender on pressure, and some fluid in the peritoneal cavity. The liver seemed of normal size. His appetite was good, and he complained of nothing except shortness of breath and difficulty in going up stairs. The abdomen rapidly enlarged and became painful, and his general condition became worse.

March 23, Dr. Barker was associated with Dr. Flint in the case. The patient's appetite now began to fail, and he suffered so much distress from distension of the abdomen that it became necessary to relieve him by tapping. I did the tapping, and drew off nine quarts of fluid. For the first time, it was now possible to make a thorough examination of his abdomen. No tumor of the stomach could be found. The liver seemed normal as to size, and his habits of life and symptomatic history seemed incompatible with the theory of cir-

rhosis of the liver, while the enlarged spleen and the hæmatemesis were believed to be due to some obstruction to the portal circulation.

For three days after the tapping he was greatly relieved of both the pain and dyspnœa, rising about ten o'clock and sitting up until evening. He took about two quarts of milk a day with great relish, but very little food besides.

On April 8th he began to complain of great pain in the abdomen, nausea, weakness, and disgust at the sight of food. The next day he vomited about a quart of fluid, which was chiefly blood, having the appearance of black vomit. He also had several discharges from the bowels of the same character. He became unconscious April 11th, and died in the night.

AUTOPSY, April 12th, made by Dr. W. H. Welch, twelve hours after death: *Exterior.*—Emaciated. Old brownish cicatrix over crest of left tibia, said to be due to a wound received in the Mexican war.

Heart.—Dimensions of heart walls and cavities normal. Recent fibrinous vegetation, of the size of a pea, on auricular surface of mitral valve; also, several smaller fibrinous deposits on the same surface.

Lungs.—Old pleuritic adhesions on both sides, hypostatic congestion, and œdema.

Spleen.—Much enlarged, about ten inches long and six broad; consistence firm; capsule much thickened in spots. The organ contains several hæmorrhagic infarctions, three of large size, one being four inches in diameter. The large ones are of dark-red color; some of the smaller ones are partially decolorized. Grayish-red ante-mortem thrombi can be detected in the branches of the splenic vein leading to the infarctions.

Kidneys.—Surface coarsely lobulated; presents several cicatrix-like depressions; cortical substance thin; capsule non-adherent.

Liver.—There are two cicatricial depressions on the upper surface of right lobe. The remaining surface is somewhat granular, but the cut surface shows no signs of cirrhosis or other change.

Peritoneal Cavity.—Contains several quarts of yellowish fluid holding in suspension flocculi of fibrine. There are present recent fibrinous

deposits over visceral and parietal peritoneum, evidencing acute general peritonitis.

Splenic and Portal Veins.—On the inner surface of the splenic vein, and also to a less degree in the portal vein, there are several rough calcareous plates and spines projecting into the lumen of the vessel. Firmly attached to these calcific spots, and extending throughout the splenic vein and into the substance of the spleen, and through the portal vein as far as its primary divisions in the liver, is a grayish-red thrombus, which at the bifurcation of the portal vein appears to completely occlude the lumen of the vessel. The thrombus is moderately adherent to the vessel wall, but is not organized.

Stomach.—Contains black coagulated blood.

REMARKS.—It would seem impossible, as the autopsy showed, to have been more definite in the diagnosis than to say there was some obstruction to the portal circulation, and yet I know of nothing that could obstruct the portal circulation and produce ascites so rapidly the first time as it was produced in this case, except thrombosis. The peritoneal cavity seemed to fill with fluid in ten days. We see cases of cirrhosis of the liver sometimes in which there is as rapid filling of the cavity as this after the patient has been tapped.

Had malarial poisoning, from which the General had suffered in 1864, in Louisiana, while serving in the Confederate army, anything to do with the causes of his death? There might have been at that time a portal phlebitis, which left a thickening of the coats of the vessel.—*N. Y. Medical Journal.*

EFFECTS OF INTRAVENOUS INJECTION OF SUGAR AND GUM.—Mm. R. Moutard-Martin and Ch. Richet have studied the effects of the intravenous injection of sugar and of gum, and their researches have some bearing on the physiology of the renal secretion, for on determining the blood-pressure with a hæmometer, they have ascertained that the injection of gum materially increases the blood-pressure in the arteries, raising it from 0.03 to 0.05 mm. of mercury, whilst the injection of sugar has no influence on the pressure. Here then we have two substances, of which one, sugar, causes polyuria, but has no influence on the blood-pressure; whilst the other, gum, augments the blood-pressure, but, so far from producing polyuria, arrests the urinary secretion.—*Lancet.*

SINGULAR FORM OF MALARIAL POISONING.

BY M. O. LOWER, M.D.

This case being a little singular, is my apology for reporting it. At 4 p.m. on the 16th of August, 1878, I was summoned to see Jacob K., a farmer, aged 50 years, living about three miles from town. I was told by the messenger that he was "jerking all over, and wanted me to bring my lancet along." I armed myself with the instrument and hastened to his assistance. When I arrived there I found him on the floor and apparently in the worst stage of chorea. By inquiry I learned that he had had a chill of ague in the forenoon of the same day, and instead of it being followed by fever, as is usually the case, he was seized with irregular contractions of nearly all the voluntary muscles, simulating chorea. It was so violent from the time of its commencement, which was 12 m., that he was nearly exhausted when I first saw him. He said that about 23 years since he had a chill and it was followed by the same symptoms. At that time they bled him freely, which gave instant relief and he requested me to do the same; but thinking it best not to resort to venesection, I gave him, as near I could guess—not having any thing with me to weigh it—20 grains of bromide potass. combined with 3 grains pulv. opii.; thirty minutes after the medicine was given he fell asleep, and the irregular muscular contractions ceased. I remained with him another half hour, and he was still sleeping, seemingly naturally. I told his wife to let me hear from him in the morning, which was done by himself coming to town; he said that he had slept about five hours after I gave him the medicine yesterday, and woke very much refreshed. His tongue at this time was heavily coated, and he complained of his limbs, back and head aching; he had all the symptoms of intermittent fever, for which I treated him. He then remained as well as usual until the 19th of September, in the same year, when I was called to visit him again, which I did, and found him in the same condition as in August, lying on the floor, with the irregular muscular contractions. I gave him the bromide and opium, which soon quieted the muscles and gave him

another good sleep; I then followed the same treatment as before. Since that time he has been in good health, has had a few symptoms of ague occasionally, but always avoided a chill by proper remedies.—*Med. and Surg. Rep.*

OBSERVATIONS ON THE DIGESTION OF MILK.—

Under this heading, Dr. E. F. Brush (*N. Y. Med. Jour.*, 1879, p. 300) gives the result of some experiments which he has made in the digestion of milk and kumyss. Cows' milk, he says, is not so digestible as the milk of mares, etc., because the cow is a cud-chewing animal. In kumyss the caseine is, so to speak, practically regurgitated and chewed, *i. e.*, having been coagulated, it is re-subdivided, and incapable of being coagulated under any acid or ferment. An advantage of kumyss in the artificial feeding of children is that the sugar of the milk has been changed into alcohol instead of lactic acid, alcohol, when properly presented, being in reality a hydrocarbonaceous food. Dr. Brush subsisted for a number of days on kumyss exclusively, taking eight bottles a day. During this time his urine, carefully examined, contained no alcohol. Afterwards, distilling some kumyss, he drank the distillate, and, later discovered alcohol in his urine. This goes to show that alcohol, as contained in kumyss, is destroyed in the system, but the same alcohol, when it has undergone the process of distillation, is eliminated as alcohol.—*Med. Times.*

BLACK TONGUE, OR NIGRITIES.—Dr. Hirtz (*Gaz. Med. de Strasbourg; Jour. des Sci. Med.*, 1879, p. 582) had occasion to examine a child of 6, whose tongue was absolutely black. No other morbid condition existed, excepting a slight gastric disturbance. Washes of every sort were used without effect, but the discoloration of the tongue lasted for six weeks. In another case the parents were sure the child had spilled ink upon its tongue, but the same persistence was observed until lotions of corrosive sublimate were used, which quickly removed the condition. An examination of the literature of this curious affection shows that so far back as 1855 Mr. Bertrand had described it; but it was reserved for M. Gubler (*Dict. Encyclopédique*) to suggest and for M. Maurice

Raynaud (*L'Union Med.* July 1 and 3, 1869) to prove the existence of a parasite resembling that of ring-worm. Fèrèol, however, a little later, attempted to show that the parasitic growth was an epiphenomenon, and that the essential disease was a papiliform epithelial hypertrophy. But more recent investigations by Lanceraux and Dessois (1878) appear to prove conclusively the presence of vegetable spores; and the treatment which has proved successful, namely, scraping and washing with lotions of corrosive sublimate (gr. i to 3i) seems to point also to a vegetable parasitic origin of the affection.

DIRT AND BODILY HEAT.—The part which the skin plays in the regulation of bodily heat is not adequately estimated. The envelope of complicated structure and vital function which covers the body, and which nature has destined to perform a large share of the labour of health-preserving, is practically thrown out of use by our habit of loading it with clothes. It is needless to complicate matters by allowing it to be choked and encumbered with dirt. If the skin of an animal be coated with an impervious varnish, death must ensue. A covering of dirt is only less inimical to life. We are not now speaking of dirt such as offends the sense of decency, but of those accumulations of exuded matter with which the skin must become loaded if it is habitually covered and not thoroughly cleansed. The cold bath is *not* a cleansing agent. A man may bathe daily and use his bath-towel even roughly, but remains as dirty to all practical intents as though he eschewed cleanliness; indeed the physical evil of dirt is more likely to ensue because, if wholly neglected, the skin would cast off its excrementitious matter by periodic perspirations with desquamation of the cuticle. Nothing but a frequent washing in water of, at least, equal temperature with the skin and soap can ensure a free and healthy surface. The feet require especial care, and it is too much the practice to neglect them. The omission of daily washings with soap and the wearing of foot-coverings so tight as to compress the bloodvessels and retard the circulation of the blood through the extremities, are the most common causes of cold feet. The remedy is obvious: dress loosely and wash frequently.—*Lancet.*

Surgery.

DIFFUSE MULTIPLE CAPILLARY FAT EMBOLISM OF THE LUNGS AND BRAIN AS A FATAL COMPLICATION IN COMMON FRACTURES, ILLUSTRATED BY A CASE.

BY DR. CHR. FENGER AND DR. J. H. SALISBURY.

A Paper read before the Chicago Medical Society, Nov. 17th, 1879.

In calling your attention to the above-named serious but very rare disease, we shall first quote the history and post-mortem examination of a case observed last summer in Dr. E. W. Lee's surgical ward in Cook County Hospital, and afterwards make some general remarks on the main features of the subject.

History.—The patient, Mrs. B., a housewife aged 45, and a native of Ireland, was admitted to Cook County Hospital, July 25th, 1879.

On admission, the patient stated that she had fallen from the roof of a kitchen to the ground, a distance of 3 meters, striking upon her left side. On examination, evidences of a fracture of the upper part of the shaft of the left femur were found.

The leg was placed in a comfortable position, but no permanent dressing was applied. Morphine was given *pro re nata*.

July 26th.—The patient was very restless, but did not complain of much pain.

July 27th.—In the morning the patient seemed to be sleeping quietly, but the respirations were quite rapid; 1 p.m., the patient was still unconscious; she could be roused somewhat, but did not become conscious; the pupils responded to light; 5 p.m., she had some slight spasms; the jaws were firmly set for a few minutes; 7 p.m., pulse 112, somewhat weak; temperature 38.5 (101½ F.); respirations, 40 per minute, regular. The patient was still comatose, face pale, lips slightly bluish. The movements of the thorax were natural. Upon percussion, the dullness of heart, liver, and spleen, was found to be within the regular boundaries. Auscultation showed the sounds of the heart to be normal. Over the lungs the normal vesicular breathing was heard. No râles were heard, either with inspiration or expiration. The posterior parts of the lungs

were also natural. The abdomen was natural. The pupils responded to light, and were equal in size. There was no local paralysis in any part of the body. The urine contained no albumen.

July 28th.—The symptoms were about the same, except that all over the lungs were heard the coarse râles which usually occur in the agony.

Dr. Fenger saw her, and made the diagnosis of diffuse multiple capillary fat embolism of the lungs. Prognosis, fatal.

Dr. Salisbury noticed about the patient an indescribable sweetish odour.

Autopsy.—To the coroner, General Mann, we owe our thanks for his kindness, which enabled us to hold the exceedingly interesting post-mortem. There were present General Mann, Drs. McWilliams, Merriman, and Lee, of the hospital staff, besides the internes of the hospital.

The autopsy was made twenty hours after death. The rigor mortis was well marked. The subcutaneous adipose tissue was abundant. The striated muscles appeared natural. In the pericardium were found 15 cubic centimeters of thin yellow fluid. The heart was natural in shape and size, but flabby. The valves and endocardium were natural. The heart muscle was somewhat greyish. The heart and large vessels contained dark fluid blood, as in strangulation. Small drops of fat were found swimming on the blood. Some old adhesions existed in the left pleural cavity. Nothing abnormal was found in the pleura costalis, nor in the pleura pulmonalis. In the subpleural tissue were many small ecchymoses, up to the size of a pin's head.

Left Lung.—The surface of the whole lung had a peculiar red, spotted appearance, which was most marked in the anterior parts of the lobes. The cut surface of the lung presented the same appearance. Some parts were quite white, which was due partly to anæmia, but chiefly to emphysema along the anterior borders.

The posterior part of both lungs was congested and somewhat œdematous. There was no capillary bronchitis. The bronchial mucous membrane was somewhat injected, but there

were no ecchymoses and no mucus except in the largest tubes.

In one place, at the base of the lower lobe of the right lung, were some larger ecchymoses. One was as large as a lobule, M. .008 in diameter. These ecchymoses were mostly subpleural. The cranium was rather thick, but otherwise natural. The dura mater was natural. The lateral ventricles contained a little clear serous fluid. The brain tissue of the hemispheres was natural, and not particularly anæmic. On the cut surface of the hemispheres, especially in the white substance, were found numerous ecchymoses, appearing as small, round, dark, blood-red points, varying in size from points scarcely visible up to 1 millimeter in diameter. These were found all through the white substance, and a few were found in the grey. The same spots were found in the cerebellum, and a group of them in the anterior part of the pons varolii, and some in the corpus callosum. The vessels at the base of the brain were natural. The substance of the large ganglions was natural.

No fluid was found in the abdominal cavity. The peritoneum was natural. The spleen was of natural shape and size, but on the surface were seen several small, dark irregularly-shaped spots 4 millimeters in diameter, which seemed to be superficial hæmorrhages.

The liver was greyish and anæmic, but there were no ecchymoses. The liver was of natural shape and size, flabby, but otherwise normal. The uterus and bladder were normal. In the fundus of the stomach were small ecchymoses in a limited space of 2.5 Cm. in diameter. Otherwise the mucous membrane of the intestines was normal. In the upper part of the left femur between the 1st and 2nd third, was a complete transverse fracture, surrounded by the usual amount of coagulated blood, filling the surrounding inter-muscular spaces. The substance of the fractured bone was normal. The marrow in the canal of the shaft was yellow from infiltration with fat, as we usually find it in elderly persons. No traces of inflammation were seen in or around the fracture. There were no coagula in the larger of the surrounding veins. The femoral vein contained dark fluid blood with no visible fat drops in it.

Microscopical examination showed the following interesting features :

Small pieces cut off with the scissors from the surface of the lung showed the smaller arteries and some of the capillaries of the pleural tissue as a whitish-yellow refracting net-work, owing to the injection and filling up of those vessels with liquid fat. Sections from the interior of the lung tissue showed a fine, more or less complete injection of liquid fat, in the net-work of capillaries surrounding and protruding into the air cells.

* * * * *

Upon adding osmic acid in the sections of lung tissue, the fat in the vessels is coloured black and the vessels then appear as if they were filled with some black injecting fluid. This renders the demonstration of the presence of fat much easier than by the examination of unstained specimens.

We are indebted to the kindness of Dr. Merriman for part of the literature concerning this subject, viz. : the *Medical Record*, of New York, July 19th, 1879, where two fatal cases of fatty embolism in fractures are briefly stated.

As far as we remember, the first observation was made in Germany, in 1862, by the renowned pathologist, Prof. Trenker. Attention once called to the danger of liquid fat from the marrow of fractured bones gaining access to the veins and causing obstruction of the lung capillaries, numerous examinations were made of the lung tissue, in occasional deaths after fractures and other lesions, and it was found that fat embolism in the lungs occurs in almost every case of extensive fracture of the bones. It is however in only a very small number of fractures that the amount of fat entering the circulation is considerable enough to prove fatal, or even to give recognizable disturbances in the course of common uncomplicated fractures.

Further investigations by Flournoy and V. Recklinghausen in the necropsy theatre at Strasbourg, showed that slight diffuse fatty embolism could be found in 10 per cent. of a series of 260 dead bodies. Up to 1879, Egli Sinclair had gathered records of 140 reported cases, and he found the etiology to be limited to one of the following three morbid conditions :

1. Extensive contusion or laceration of soft parts, containing abundance of adipose tissue. 2. Fracture, with extensive lesion of the marrow of the bones, and, 3. Osteomyelitis—chronic as well as acute inflammation of the marrow of the bones.

The most severe cases of fatty embolism however set in after fractures; *e. g.* In 140 cases, death ensued in 18; that is, 13 per cent. Of these 18 deaths, 16 occurred in the 84 cases of fracture.

Symptoms and Diagnosis.—The symptoms, as Egli Sinclair gives them, from cases of fatty embolism in extensive fractures, are as follows: Unexpected, rapidly increasing, general debility; then the symptoms from insufficiency or entire absence of oxidation of the blood; respirations from 40 to 60 in the minute; pulse weak and frequent; temperature often somewhat augmented. Râles in the larger bronchi, and finally in the trachea (premortal). Dyspnoea sometimes to the highest degree; then reddish foam coming out of the mouth. The face grows pale, later cyanotic; the extremities get cold, pupils contracted. The patient becomes somnolent, finally comatose, and death ensues, sometimes preceded by vomiting and spasms.

The diagnosis in the case which we have related was based on the following reasoning:

We had before us a previously healthy person with a simple, uncomplicated fracture of the femur, that from the beginning promised to run the usual benign course towards healing. The second day, except some restlessness, there was nothing to indicate the approaching danger. The third morning she was found in a comatose condition, which had set in without any previous suffering sufficient to waken her from her sleep, which means that the grave symptoms, as usual in these cases, set in suddenly. Besides this comatose condition, we find no fever of any account. A temperature of $101\frac{1}{4}^{\circ}$ is the usual aseptic and innocent rise in temperature that will be found (R. Volkman, in 11 out of 14) in most of the fractures of the femur not treated with immovable dressings. The physical examination does not show any morbid symptom in the organs of the thorax and the abdomen. The urine shows that there is no disease of the

kidneys and no diabetes. As to the brain, we find no symptoms of a local disease. There is no paralysis, equal pupils and no symptoms of pressure, such as stertorous breathing, etc.

The only positive symptoms able to lead attention in the direction of the seat of serious trouble were the cyanosis, paleness of the face, bluish hue of the lips and the augmented number of respirations—40. These symptoms evidently pointed to the lungs. As now the air-cells as well as the bronchi were normal, we must place the trouble in the circulatory system of the lungs, thrombosis or embolism in a great part of the pulmonary vessels.

A spontaneous thrombosis in the trunk and branches of the pulmonary artery can take place in endarteritis of this artery. But this disease is as seldom found here as endocarditis in the right heart. Embolism could occur from a loosened thrombus in any part of the venous system from the right ventricle or auricle, but here was no previous heart disease and no previous exhausting febrile disease.

The only peripheral diseased place to be found was this recently fractured femur. Around a fracture, thrombosis in the larger veins is not uncommonly found (F. Durodié). The thrombi from the smaller veins formed round every fracture extending out into larger and larger veins, causing probably part of the œdema accompanying so many fractures of the extremities. Loosening of part of these thrombi and subsequent embolism of the lungs is rare, but takes place in one case out of three hundred (Durodié). A sufficiently large aseptic embolus in both of the main branches of the pulmonary artery might give a similar series of symptoms ending in death. But the formation of these peripheral venous thrombi and their subsequent detachment and entrance into the circulation take a much longer time than 48 hours, and consequently we were compelled to abandon this explanation of the symptoms. Finally there was left no other diagnosis that would correspond to the symptoms of the case than the fatty embolism of the lung capillaries, *i. e.*, the introduction into the circulation of liquid fat in sufficient quantity to make the greater part of the lung capillaries impassable for the blood. The moderate acceleration of

the pulse and the not extreme cyanosis are easily explained by the difficult passage of the blood through the lungs from the venous system over-filled with blood. The weakness of the radial pulsation is a natural consequence of the diminished quantity of blood in the arterial system. The comatose condition may be explained by the want of blood supply to the brain and the medulla oblongata (Wagner), probably combined with accumulation of carbonic acid in the blood. Whether the multiple capillary embolism in the brain in our case contributed to the depression of the cerebral functions or not, cannot be decided.

In a number of the reported cases of this kind the fatty embolism has caused sudden death. (Wagner, loc. cit.)

In one of Déjerine's cases death occurred in two and a-half hours, in the other, thirty-six hours after the fracture was received. The report of his cases does not give any information about the duration of the grave symptoms. About this we cannot tell anything for want of the original reports of previous cases. Our case, though fatal, did not take a very rapid course, which was so far interesting, as it gave sufficient time (the grave symptoms lasted over thirty-six hours) to have the diagnosis based upon a minute examination of the symptoms.

Prognosis.—The prognosis depends upon the quantity of the circulating fat, and upon the strength of the heart's action. If the right ventricle can get and keep up power enough to push the fat through the lungs, then the immediate danger will be overcome. An extensive fracture, as the source of the embolism, will make the prognosis worse 20 to 40 per cent. than lacerated soft tissues or osteomyelitis.

Treatment.—The natural treatment will be to stimulate the action of the heart in the hope that an increased *vis a tergo* can drive part of the fat through the lung capillaries, out into the aortic system (digitalis, alcoholics, etc). When the immediate danger from the pulmonary system can be overcome, then the organism will gain time to get rid of the fat, presumably by transforming it into soluble soaps through the action of the alkalies in the blood. Merely hypothetically, we should advise

to keep the fractured bone or the diseased part scrupulously immovable, with the view of preventing any more liquid fat from escaping from the tissues. As to this point, we must remember that in the marrow as well as in the adipose tissue, the fat is contained in so-called fat-cells, *i. e.*, membranous sacs. These membranes must be destroyed or torn open before their contents of liquid fat can gather in a fluid, movable mass; and it is in this condition of the fat that the danger lies, as we do not find the fat-cells or sacs but only their contents in the capillaries of the lungs.

HOW TO GRASP THE PELVIS FOR FIXATION IN CONTRACTION OF THE HIP.

BY R. GERSUNY.

(Translated from German by Herman Mynter, M.D.)

If a patient, with a contraction of the hip-joint, which is disguised by the oblique position of the pelvis, lies on his back on a level surface, the diseased leg touches with its posterior part the mattress, while the lumbar vertebræ are curved forward. If we now take hold of the healthy femur and bend it passively until it touches the chest, we see that the arch, which the lumbar vertebræ form above the mattress, flattens more and more as the flexion of the healthy hip-joint increases. At last the column of the lumbar vertebræ is perfectly straight. At the same time the diseased femur rises from the mattress, and cannot be pressed down as long as the healthy femur is fixed. The cause of this is that the pelvis is fixed forcibly by aid of the passively flexed healthy leg. I shall only further point out that this position of the body may be of use both in *brisement forcé* and in gradual stretching of the hip-joint, whether we use passive-manipulations or apparatus for extension. I was able to convince myself of the practicability of the method in question, both in *brisement forcé*, on account of contraction of the hip following coxitis, and in passive movements in cases of paralytic contraction with healthy hip-joint.

I have had no opportunity of trying whether this method may be of use by permanent extension, This might be done easily by fixing

the flexed healthy femur, by aid of a broad band, while the diseased leg was permanently extended downward.—*Centralblatt fuer Chirurgie*.

ANTISEPTIC SKIN GRAFTING. (By Joseph Lister, F.R.S.)—The large callous and foul sore, having been dressed for a few days with moist boracic lint covered with gutta percha tissue, was purified completely by sprinkling the surface lightly with the powder of iodoform, after washing the surrounding epidermis with strong watery solution of carbolic acid. Prepared oil silk (protective) dipped in boracic lotion was then applied to the sore, and covered with boracic lint overlapping well in every direction. A similar dressing of oiled silk and boracic lint was applied every third or fourth day, until the granulations had assumed thoroughly healthy characters, when skin-grafting was performed by shaving a thin slice about a quarter of an inch across, consisting of little more than epidermis, from the inner side of the upper arm, which had been washed with 1 to 40 watery solution of carbolic acid, cutting this into small pieces on the thumb-nail, and placing each, with the raw surface downwards on the granulations, each graft being covered, as it was deposited, with a little bit of oiled silk dipped in boric lotion. A general piece of the oiled silk rather larger than the sore was then applied, and over this boric lint in two layers secured with a bandage. This dressing was left untouched for a whole week, so as to allow the grafts a long period without mechanical disturbance. We all know how black and foul oiled silk would be if left for a much shorter time upon a suppurating sore without the use of an antiseptic. But here it was quite free from discoloration or odour, while every one of the nine grafts was found to have taken root, and cicatrization was proceeding at the margins of the ulcer with a rapidity that could not have been hoped for under water-dressing changed daily.—*Lancet*.

THE *Chicago Medical Gazette* sagely remarks that "any new medical college necessarily fills a space which would otherwise be a vacuum."

Midwifery.

EXAMINATION OF THE GENITALIA AFTER LABOUR—TREATMENT OF LACERATED PERINEUM.

BY ALBERT H. SMITH, M.D.

Some portion of the placenta may remain attached to the internal surface of the uterus, and, becoming putrescent, give rise to hæmorrhage, for we know that anything remaining in the uterine cavity after the expulsion of the after-birth acts as a splint to keep the uterus uncontracted. Should you, under such circumstances, insert your hand into the uterus, you will discover the existence of hæmorrhage in the shape of coagula, which should be first removed, and then the cavity of the womb should be thoroughly cleansed with antiseptic washes.

If you meet with a tendency to flooding after labour, and if, upon careful examination you find the uterus firm and contracted and the cervical and vaginal surfaces presenting no loss of continuity, you should suspect the presence of "placenta succenturia" and at once remove it.

In primiparæ always make it a duty to make a thorough ocular examination of the parts after the placenta has been expelled, and in the case of a multipara do not hesitate to go through with the same process if you have the slightest reason to suspect the existence of any such lesions, for fissures of the perinæum and vagina of a very serious character may otherwise escape notice.

In its normal state it is a very easy matter to detect the difference between a smooth and lacerated vaginal surface; but where, after labour, the vagina is puffed up and cedematous, it may be very hard to recognize the existence of a tear by the sensation which it presents to the touch. Hence, you should always have the parts illuminated by the light of a candle or by gaslight. Then, again, for the thorough detection of these rents and fissures, you ought, in every instance, to introduce the first and second fingers of the left hand into the rectum and draw it forward and pouch it out and so expose the posterior vaginal wall laterally as far as the fossa at the tuberosity of the ischium, bringing the pouched surface well out beyond

the vulva. This you can easily do, and in this way calling the eyes to the assistance of the fingers, you can at once detect the presence of any lesion, if such exist, which requires your attention. At the same time you may see to it that no hæmorrhoid or fissure of the rectum be allowed to remain unattended to. This examination must be always made in the case of a primipara.

Where a laceration of the vagina thus discovered is too slight to demand operative interference, all that is necessary will be to wash the parts out thoroughly with a strong disinfectant solution.

I remember very well my first examination of the vagina after labour, and how utterly astonished I was at the appearance of its mucous membrane. It looked more like a mass of beef's liver than anything else, and seemed as though the slightest force applied would tear it through, but, pressing my finger against it I found it firm and resisting. It really looked as if the whole bulk of tissue were making preparation to slough away. The livid appearance of the parts is produced, of course, by the immense amount of congestion present, from the steady advance of a tightly fitting head.

Indeed, this livid and congested mass is much more favorable for vital purposes than any one would imagine. Never be led into mistaking this almost habitual condition of the vaginal canal after labour for one of gangrene, for if you examine it twenty-four hours afterwards, you will find that the parts have almost entirely regained their wonted appearance, if no loss of tissue have occurred.

In making such an examination as this, the first thing that you are likely to see, if it exists, is a laceration of the perinæum. This condition should be treated promptly and effectually. In the vast majority of cases, the best results will follow if you bring the torn surfaces completely together at once, so as to keep out the lochia. You will not only save your patient from great and everlasting discomfort, but will also thus set aside the necessity of the performance of the secondary operation, which is more serious and always tedious.

You can easily etherize your patient, and

you will find her very willing to undergo the operation as a part of the labour process.

It is customary to divide lacerations of the perinæum into three classes, viz: (1) lacerations simply of the integuments; (2) lacerations through the perinæal body to the sphincter ani; and (3) lacerations completely through the sphincter ani and into the rectum. These last are fortunately very rare. As a general thing, nature seems to guard this occurrence, and the tear, if serious, takes a course round the sphincter so as to almost dissect it out. If the sphincter ani is torn and gapes, the patient is placed in the wretched position of having lost all power of holding her fæces and her wind, and they escape at pleasure, rendering her the most unhappy of women.

I advise you to sew up all kinds of lacerations, for wherever you have cicatricial tissue there you have pain.

The old method of putting in the stitches was to pass the stitch through the integument on the anterior edge of the tear and bring it out on the lacerated surface, and carrying it over to the other side to bring it out there in the same manner. The effect of which was to make a pocket behind the stitch in which the lochia would collect, and so interfere with perfect union of the sides. The old method simply reunites a part of the lacerated surfaces.

In order to prepare for such accidents, you should always, particularly in country practice, carry with you the necessary instruments for sewing up the perinæum. For this purpose you want needles. I use a long Baker-Brown needle, with an eye at the end in which the wire loop is placed when you are ready to place it in situ.

You may use this needle permanently fixed in a handle, or you may prefer needles which are not attached to a handle, but which can be used by grasping them with a needle-holder, the best form of which is a Russian clamp, which renders the grasp of the holder very powerful.

Many prefer the separate needles, because they are smaller in thickness than the ones with permanent handles, and because, if one of them should be broken, you can very easily replace it.

You should have a pair of bull-dog forceps, a tenaculum, a pair of scissors, and some good, stout silver or iron wire. Or, you may use silk thread, or reliable cat-gut.

If you guard the perinaeum by support and lateral incisions when needed, laceration will be very rare occurrences, the accident when it does happen, need not cover you so with opprobrium, that you shall be afraid to acknowledge the true state of affairs and let your patient go on from bad to worse, rather than make a confession. I say this because I know the accident may, and in fact often does, occur in the practice of the very best obstetricians.

Before performing the primary operation, you ought to see that the torn surface has been thoroughly cleansed. Use carbolyzed hot water for this purpose. Be very careful, however, if you find the rent is large enough to need sewing up, that you do not use so strong a solution of the carbolic acid as to destroy the vitality of the parts. You can never get any union between two cauterized surfaces. Always employ a douche of hot water before putting in your stitches, for it stimulates the parts and so hastens the healing process.

I have seen surfaces that looked as if they were going to slough, immediately improve most markedly in appearance under the use of hot water. The stimulation of the tissues produced by hot water increases ten-fold the chances of rapid and satisfactory union.

Before you proceed to put in the stitches, be careful to place a sponge well up against the mouth of the cervix uteri, so as to prevent the blood and other discharges from getting between the stitches and so interfering with union, and take very good care to withdraw this sponge when the stitches are all in situ.

The books all tell you to make the first stitch below. I always put in the first stitch above, making that stitch draw thoroughly together the margins of sound tissues above the laceration.

In one of my cases the recto vaginal septum was so thin that the needle could not take hold of the tissue. Now, it is very easy to see that if your first stitch is passed through such thin tissue as this, it is but too likely to tear out, or to ulcerate through into the rectum. So, al-

ways pass your first stitch through the thick and healthy tissue where you know it will hold, imbedding it completely; then pass the other stitches and imbed them all as much as possible in the tissue. I always take pains to imbed the wire all the way around in the tissues so that when I draw the ends of the wire together there is no pocket left behind the stitches. I pass my needle in close to the upper angle of the laceration and pass it entirely round to the other side, so that it does not come out at all, except at the extremity of the suture; then I take a very long wire and pass it through the eye of the needle and draw the needle back. Having, now, one stitch in the strong and un-lacerated tissues, I gain a support for the tissues below, a sort of break-water which protects the lacerated surface from the lochial discharges; then I put in a second stitch. Sometimes the recto-vaginal septum is so thin as to render it utterly impossible to prevent the needle from coming out now and then on the surface.

You are advised by the books to tighten up the lowest stitch first. I advise you to tighten up the highest (*i.e.*) the first) stitch before you touch any of the others, and I think you will understand perfectly why I say this. If you tighten up the stitches from below upwards, the blood and other discharges will constantly be flowing down over the lacerated tissues and will fill up and bulge out all the little puckeringings and crevices formed when the lowest stitch is tightened, and so you will have union interfered with; whereas, if you tighten up the highest stitch first, it will protect the tissues below and no blood can fill up the crevices, and then all you have to do when you come to the other stitches is to wipe off the raw surface and tighten the next lowest stitch, and so on until all the stitches are secured.

Thus you will have brought together the whole surface of the lacerated tissue, so that when the plastic material is thrown out, there is no portion of raw surface not in contact with some other portion.

One of the advantages of the Baker-Brown needle is, that it makes a track larger than the wire, and so you withdraw it very nicely; and even when the recto-vaginal septum is very

thin, there is less chance of the wire lacerating into the rectum and giving rise to a recto-vaginal fistula.

As regards the method of fastening the ends of wire together after the stitch has been tightened up, I twist them together.

If you employ silk, be sure to cover it well with wax or parafine; but after all, there is nothing like thin wire. The best results are obtained from the finest wires.

With regard to the dressing needful after the stitches have been properly secured, I generally use some emollient ointment, such as cosmoline.

The patient must be carefully catheterized for forty eight hours after the operation, to prevent the urine from running over the wound. Perhaps the nurse may not know how to use the catheter. In this case, I advise you to provide yourself with one of Goodman's self-retaining catheters. It is particularly valuable when the meatus urinarius is hard to reach. The gum-tubing connecting the self-retaining catheter with the vessel under the bed, should run *over* and not *under* the thigh. If it runs under the thigh, the catheter rests on the stitches, and so by its continued pressure may do some injury; whereas, if it runs over the thigh, the end of the catheter is lifted off the stitches.

After introducing the catheter, the legs should be bandaged tightly at the knees and the patient placed in bed. The after-treatment is very simple. The vaginal douche should be used at the end of twenty-four hours and the canal washed out with carbolized (weak solution) warm water.

I generally leave the stitches in as long as I can. Patients are always nervous and want to have them taken out, but I never remove them under five days, and if they can be left in for seven days I am all the better pleased. If you take the stitches out prematurely, the parts which are beginning to unite may gape again.

In regard to the treatment of *vaginal furrows*, all that is necessary usually is to wash the vagina out with a strong solution of carbolized hot water. If the bleeding is obstinate however, you may be obliged to put in vaginal

stitches, imbedding them, if possible, at the rate of about five to the inch, to stop the hæmorrhage and cause union, thus preventing cicatricial bands.

Incisions of the labia I am in the habit of cauterizing with pure carbolic acid, so as to prevent septicæmia, for a cauterized surface cannot absorb putrescent materials. In speaking of labial incisions I refer, of course, to those made for the prevention of perineal laceration. In only one case in my practice have I found it necessary to sew up these incisions with sutures, in which case I did not, of course, apply strong carbolic acid.

With reference to lacerations of the cervix uteri, Dr. Broomall proposes uniting the torn lips immediately by cat-gut sutures. As there is no tension of those tissues after union, I see no reason whatever why she should not succeed perfectly with the cat-gut. The condition of lacerated crevix calls for one of the most serious operations in gynæcology, for unless it is properly treated, there is the pouting of the crevix and all the attendant constitutional disturbances first pointed out by Dr. Emmet, of New York. I see no reason why the primary operation should not succeed.

If hæmorrhoidal masses project from the anal surface after labour, be very careful to restore them at once when the rectum is widely distended, and they will give rise to no trouble. Pass them in and hold them there until they show no tendency to prolapse again. If left out, they become tense and inflamed and give rise to great agony on the part of the patient.—*Hospital Gazette*.

FOR BURNS AND SCALDS, the *Allg. Hopfen-Zeitung* says one of the best but least known agents is oil of peppermint. Applied by pencil or cloth to the wound, it gives prompt ease from pain and leads to a rapid cure without scars. This oil should always be kept on hand. Previous to its application the burnt part may be kept under water. It is sometimes advisable to dilute it one-half with glycerine. In this form it is an excellent application to frozen extremities.—*Allgemeine Wiener Zeitung*, No. 1, 1880.

OBSTETRICAL SOCIETY OF LONDON.

Methods of Transfusion.

At the meeting of the Obstetrical Society, London, held on Wednesday, the 3rd December, a report of an Experimental Inquiry into the Methods of Transfusion, by E. A. Schafer, F.R.S., was read. The first part of the inquiry was to ascertain whether any other fluid, such as milk, could with advantage be substituted for blood in transfusion. Numerous experiments were made on this point, with the co-operation of Mr. G. F. Dowdeswell. It was found that rabbits generally died within twenty-four hours if ordinary milk was injected into their veins, even in small quantities. The blood-corpuscles became disorganized, and the blood swarmed with bacteria. Milk which had just been boiled, or which had been drawn direct from the cow's teat into a previously superheated vessel, was innocuous. Dogs and cats resisted the action of septic organisms in milk. In animals reduced by bleeding to almost a lifeless condition, the injection of milk into the blood-vessels was sometimes, but not always, followed by temporary rise of blood-pressure, but there was never any permanently beneficial effect. Such animals always died. These results are confirmatory of those of Howe and Dupuy in America. It was next explained that no fluid lacking hæmoglobin could be expected to be of benefit in cases of acute anæmia. The question next to be determined was whether the blood of any other animal could be used for transfusion in cases of depletion of the human subject. This question is answered in the negative by the results of the microscopical examination of mixtures of human blood with the blood of lower animals. As Landois and others have already shown, sooner or later the red blood-corpuscles of one or both kinds of blood become dissolved. Moreover, the white blood-corpuscles cease their amoeboid movements, and are soon killed. Sometimes the solution of the colouring matter of the blood-corpuscles occurred in a few minutes, sometimes not for some hours. At any rate the action of the blood or even serum of the lower animals is by these experiments proved to be an actual poison to the human blood-

corpuscles, and would probably be the same to the living cells of the tissues. Moreover, it was found that dog's blood could not be transfused to any great extent into a cat in place of the animal's own blood, or lamb's blood into a dog, without fatal consequences. The result of these experiments, then, is to prove that *in man only human blood can be used with advantage for transfusion*. It was next sought to determine the best method in which transfusion can be effected, and especially if it were possible to transfuse arterial blood into an artery towards the heart. The great advantage which such a method must present is pointed out by Blundell, who, in one passage in his "Researches," gives as a reason for recommending such a course that the circulation through the coronary arteries is at once renewed, and the heart thereby strengthened. Numerous experiments were accordingly made upon dogs and cats with the object of testing the results of such a mode of transfusion and its applicability to the human subject. In these experiments an animal was first depleted of blood until arterial pressure had sunk almost to zero, and one of its arteries (femoral) was connected by glass cannulæ and simple indiarubber tube filled with carbonate of soda solution, with the artery of another healthy animal. The connection was in every case followed by a recovery of the depleted animal almost magical in its rapidity and extent. It was found that a flow of one minute's duration was generally enough to restore the patient, and further that there was little or no danger of the flow of blood from the donor being excessive, for the pressure in the arterial system of the recipient speedily became equal to that in the donor. Out of many experiments of this nature, in only one was the ultimate result unsuccessful, death occurring on the seventh day from secondary hæmorrhage. But in this case the animal was unhealthy (skin disease) at the time of the operation. It was pointed out that the ordinary risks of transfusion, such as the introduction of air or clots into the veins, and supervention of phlebitis, are absent from this operation, and that it has further the advantage that no apparatus is required beyond a simple tube, and that the blood is at once introduced into the situation where it is most

needed—viz., the arterial system. The difficulties that are presented by the use of arteries for transfusion were not lost sight of, but it was insisted on that the very general fear of dealing with arteries is in great measure unfounded; especially if a minor artery is employed. In the human subject it is recommended that the dorsal artery of the foot should be used both to yield the blood and to receive it. The exact method in which the operation is to be performed was described, and the tubes and cannulæ recommended were exhibited. The details of the experiments on transfusion, and especially of transfusion from vein to vein, instead of from artery to artery, then followed. These showed that transfusion from vein to vein, through a simple indiarubber tube with glass terminal previously filled with carbonate of soda solution, was both easy and, except in extreme cases, in which the heart had almost ceased to beat, rapidly effectual. It was found that the intervention of an elastic pump, as in Aveling's apparatus, did not accelerate the flow, but in some cases stopped it by sucking in the wall of the vein, and was, moreover, liable to force clots into the patient's vein. And it was pointed out that there is no object in measuring the amount of blood which flows except by the effect produced upon the patient and donor. Finally, it was recommended, as the result of these experiments:—1. That fluids other than human blood should never be used for transfusion in cases of hæmorrhage. 2. That transfusion should always, if possible, be effected through a simple flexible tube with glass cannulæ. 3. That direct centripetal arterial transfusion should, if possible, be employed. 4. That failing any person willing to submit an artery to yield the blood, but ready to allow of the exposure of a vein, direct venous transfusion be employed. 5. If it is impossible to attempt either arterial or venous direct transfusion, immediate transfusion of either unwhipped or whipped blood collected into a funnel and allowed to flow through an indiarubber tube and glass cannula into a vein can be tried, although with greater risk of the introduction of clots and of the germs of putrefactive bacteria into the vascular system of the patients.—The President expressed his sense of

the great value of the report. At the same time he felt that there were great difficulties in carrying out direct transfusion, especially the arterial. The objection to opening an artery, and the state of general confusion of a household at the time transfusion was required, rendered it extremely difficult.—Dr. Hicks agreed that it was impossible in many cases to effect direct transfusion, and asked if saline solutions (such as of phosphate of soda), used to prevent the blood to be transfused from coagulating, rendered people more liable to hæmorrhage after its use.—Dr. Champneys stated that the effect of transfusion of lamb's blood in persons suffering from exhausting disease at Dresden were blushing, dyspnœa, hæmaturia, and, in some cases, urticaria. No fatal cases occurred.—Dr. Aveling objected to arterial transfusion, preferred venous, and advocated elevation of the limbs and buttocks, with lowering of the head.—Dr. Cory had transfused three times—twice with saline solution, both died; once by Roussel's apparatus, and the case recovered.—In reply, Mr. Schafer pointed out the danger from using defibrinated blood, acknowledged the difficulties of direct transfusion, and stated that the blood might be prevented from coagulating by mixing with it saline solutions, but the transfusion of such a mixture would prove fatal.—*London Lancet.*

THERAPEUTIC ACTION OF SUBCUTANEOUS INJECTIONS AND SIMPLE PRICKS OF THE SKIN.

—M. Dumontpallier sets forth some results he has obtained in certain neuralgias from injections of pure water. In persons affected with very painful sciatica, lead colic, and various neuralgias, he has caused the pain to disappear by simple injections of pure water. In acute articular rheumatism, also, these injections have relieved the pain. As a still more curious thing, M. Dumontpallier has witnessed the same effects from simple pricks. In order to relieve the pain in any given point it suffices to prick the homologous point of the opposite side. *Apropos* of this, M. Laborde reminds us that acute articular rheumatism was formerly treated by acupuncture, after a method borrowed from the Chinese. However, it appears to be demonstrated that the neuralgias due to an organic affection, such as cancer, are not benefitted by injections of pure water.—*Le Progrès Médical.*

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical
 Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

NOTICE.—*Correspondents will please address all communications, remittances, &c., to the Editor, 57 Adelaide Street West.*

TORONTO, MARCH, 1880.

THE DIGESTIVE FERMENTS, AND
 THEIR THERAPEUTICAL USES.

BY WM. ROBERTS, M.D., F.R.S.

Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

II.

PEPTONES AS FOOD.—Although we have been able for many years to imitate digestion very accurately in the laboratory, the proposal or suggestion to feed patients with artificially digested food has hardly yet passed beyond the tentative stage. There cannot be a doubt that if we had at our disposal an available supply of artificially digested (or peptonised) proteids in a state fit for human food, we should find numerous conditions in which such a resource would offer promise of important advantage. In the alimentation of fevers, in the malnutrition of infants, in various gastric and intestinal lesions; in short, wherever natural digestion was partly or wholly in abeyance, we should find an ample field for the trial of peptonised food. The attempts hitherto made to prepare peptones and peptonised aliments for the sick have followed the gastric method—that is, the process with pepsin and hydrochloric acid. But so far the results have been disappointing. The difficulty lies in this. If you subject any native article of food—say milk, or bread, or meat—to artificial digestion with pepsin and acid, you utterly destroy the grateful odour and taste, and the inviting appearance, which made

it desirable as food, and you convert it into a nauseous mess from which the human palate turns away with disgust. The unsavouriness of digested food is, however, not due to any ill taste or smell inherent in the peptones themselves—which, when purified, are both odourless and tasteless—but to a number of by-products of various kinds, volatile acids and other matters, which accumulate as digestion proceeds. One of these by-products is a bitter flavour, which is a constant and noteworthy characteristic of gastric digestion. I find it also associated with the later periods of pancreatic digestion, but in less intensity. The difficulty can be evaded by separating the peptones from the digested mass, and purifying them by repeated precipitation with absolute alcohol. But this process involves so much cost and labour, that it would preclude peptones so obtained from getting into general use.

PEPTONISED MILK.—For some time past I have been trying to attack the problem in another way. Last year, I found that extract of pancreas digested milk with great ease and with little apparent disturbance of its physical character. Milk, as you know, contains all the elements of a perfect food adjusted in their due proportion for the nutrition of the body. Two out of its three chief ingredients—namely, the sugar and the fat—are already in the most favorable condition for absorption, and require little, if any, further assistance from the digestive ferments. It is, therefore, obvious that, if we could change the casein of milk into peptone without materially altering the taste and appearance of the milk, such a result would go very near completely solving the problem of supplying a predigested food for the use of invalids. This consummation is still some way off; but the results already reached are, I think, susceptible of important dietetic application. You cannot, so far as I now know, *completely* peptonise milk without rendering it unfit for human food; but you can *fractionally* peptonise milk—that is, convert three-fourths or four-fifths of its casein into peptone—without materially diminishing its agreeable qualities as an article of food. In order to understand this matter fully, I must ask you to follow me while I describe what occurs when milk is

subjected to the process of pancreatic digestion. I cannot do this better than by describing an experiment performed this forenoon, of which the results are placed in these phials before me. A pint of milk was diluted with half-a-pint of water, and after being heated to 120° F., was placed in a glass beaker with a teaspoonful of liquor pancreaticus and twenty grains of bicarbonate of soda. The beaker was then placed in a warm chamber, and maintained at a temperature of 110° F. until the close of the experiment. In about ten minutes the milk was observed to thicken and become softly curdled. This phase soon passed away; the soft curds became dissolved; and in about half-an-hour from the commencement, the milk had recovered its diffuent condition. Meanwhile, the milk had lost something of its glossy white appearance, and become a shade yellower. Very gradually, further changes took place; the milk got to look a little thinner and greyer; its flavor also progressively deteriorated, and at length became somewhat bitter and unpleasant. The process was completed—that is, all the casein was converted into peptone—in two hours and a half from the commencement of the experiment. The milk no longer precipitated with acetic acid nor even with nitric acid. These numbered bottles contain samples withdrawn from the beaker at different periods, and immediately boiled to prevent further changes. No. 1 represents the original mixture; No. 2 was removed in half-an-hour; No. 3 in an hour; No. 4 in two hours; and No. 5 at the end of the experiment. Nos. 1, 2, and 3 are scarcely distinguishable from each other, either in appearance or in taste; and yet I know, from other and parallel experiments, that in No. 3 at least three-fourths of the casein is changed into peptone. Nos. 4 and 5 are perceptibly altered in taste, but even these have nearly preserved their original milky appearance. The slight yellowing and greying just spoken of are not appreciable, except by comparison with a specimen of unaltered milk placed by the side of the digested samples. The series of changes do not cease with the completion of the peptonising process. The milk continues to deteriorate; and in the course of some hours it becomes more grey and watery-looking, and

its taste becomes decidedly bitter and nauseous. It is important to know that you can arrest this series of changes at any point or at any moment by simply heating the milk to the boiling point. This at once destroys the activity of the ferments and puts an absolute check to all changes. It is also important to know that the greater part of the casein is converted into peptone soon after the commencement of the process, and that it takes a disproportionately long time to convert the remaining portion. Thus I found, when the experiment was so arranged that the milk was wholly peptonised in two hours and a half, that two-thirds of the casein was converted in the first half-hour and three-fourths in the first hour; and that it took an hour and a half longer to convert the remaining one-fourth. In this respect, the peptonising process followed the rule observed in many other ferment actions; namely, that the gradually accumulating product of the ferment-action hampers the operation.

In preparing peptonised milk for invalids, it is absolutely essential to immediately boil the milk when the process has reached the desired point, in order to stop ulterior changes. It is, moreover, obvious that it is not necessary for a therapeutical purpose that the milk shall be completely peptonised. A milk in which three-fourths of the casein is digested, and which is so little altered in flavour that it can be taken like ordinary milk, would probably fulfil all the service capable of being rendered by fully peptonised milk. Such a result as this is, I believe, now within our reach. The rate at which milk can be peptonised by pancreatic extract—in other words, the time within which a given quantity of milk can be digested by this means—varies almost indefinitely according to the attendant circumstances. Four conditions have especially to be taken into account, namely, temperature, the degree of alkalence, the degree of dilution, and, above all, the quantity of the ferment. The higher the temperature, up to about 140° F., the quicker the digestion. The process is arrested and the ferment destroyed at 157°-158° F. On the other hand, a slow action takes place even in the cold. The process is hastened by increas-

ing the alkali up to about four grains of the bicarbonate to each ounce of milk. An alkalescence of one grain to the ounce of milk secures a sufficiently rapid action, and gives no appreciable taste to the product. A slower action takes place even in milk to which no alkali has been added. Dilution with water hastens the process greatly; it also facilitates it in another way. If the milk be diluted with one-third or one-half its bulk of water, the curdling phase is either altogether absent, or is usually so slight as not to amount to more than a transient thickening of the milk. In practice, I have, therefore, always found it advisable to dilute the milk beforehand, either with simple water or with a farinaceous gruel, so as to abate the tendency to curdling. This tendency varies in a way I cannot always explain. Pronounced curdling delays the peptonising process very considerably, and thereby renders the product less acceptable to invalids.

The quantity of ferment that should be used is always a matter of uncertainty. It is impossible to obtain pancreatic extracts of constant strength; and not only do several specimens of pancreatic extract differ from each other, but even the same specimen varies in activity according to its age. Freshly made extracts are nearly inert, and they go on increasing in activity for many months after they are made. But supposing you to be operating with the same sample, the proportion added to the milk greatly influences the rate of digestion. I have generally used a dessert-spoonful of the extract to a half-pint of milk. If the preparation be fairly active, this proportion yields a sufficiently quick result; and, in the case of the liquor pancreaticus, communicates no flavour. The glycerine extract perceptibly sweetens the milk, and is to some people disagreeable.

After a good many trials, I now advise the following procedure for preparing a peptonised milk for the sick-room. A pint of milk is first diluted with half its bulk of water and heated to about 150° F. It is then put into a covered jug with a tablespoonful of liquor pancreaticus and twenty grains of bicarbonate of soda (in solution). The jug is then placed in a warm place under a "cosey" for one hour. At the

end of this time, the milk is at once raised to the boiling point. It can then be used like any other milk, and undergoes no further change until decomposition sets in. It is well, however, to know that peptonised milk does not keep well, and that it should be used within twelve hours of the time of preparation. The use of the thermometer may be obviated by directing the milk to be diluted with an equal bulk of *boiling* water.

Another formula, which supplies a more nutritious product, and does not require the thermometer, is the following. To half-a-pint of cold milk, in a covered jug, add half-a-pint of well boiled and *boiling* gruel. This gives a temperature of 120° to 130° F. To this add a dessert-spoonful of the liquor pancreaticus and a dessert-spoonful of a saturated solution of bicarbonate of soda (which contains about ten grains). Put under a "cosey," as before, and heat to boiling at the expiration of an hour. In this case, the trypsin of the pancreatic extract acts on the casein of the milk and (I presume) on the gluten contained in the gruel. The diastase of the extract also acts on the starch of the gruel, and converts it into sugar. This method gives us a preparation similar in design to Liebig's food for infants, but in which the proteids, as well as the amylacea, are subjected to digestion. The making of it is exceedingly easy, and it would seem well adapted both for the nursery and the sick-room. The gruel employed should be made thin; it may be prepared from wheat-flour, or from oatmeal, or from any other farina.

I have now used these fractionally digested articles of food in a considerable number of cases, and in many with gratifying results. If the process be properly performed, if it be cut short by boiling at the right moment—that is, after the curdling phase has passed away, and before ulterior changes have rendered the milk unpleasant to the palate—the resulting products are liked as well as if they were simple milk-and-water or simple milk-gruel. But if the process be carried too far—or if, on the other hand, the milk be still partially curdled when set before the patient—the product is not liked, and is even apt to cause nausea.

When further experience shall have taught us how to produce a pancreatic extract of constant strength, there will be no difficulty in exactly fixing the proper moment for stopping the ferment-action; meanwhile, the best rule is to allow the process to go on for an hour, and not longer. I have several times seen fractionally digested milk remain on the stomach when nothing else would remain. I have also seen this food tolerated without pain when all other food caused pain.

In the present state of this inquiry, it would not be prudent to say more on the therapeutical uses of peptonised milk and milk-gruel. Any practitioner can easily prepare these articles for himself, and make trial of them among his patients. The pancreatic extracts are made under the personal supervision of Mr. Benger, who has spared neither time nor labour in their preparation, and who, by his skill as a practical pharmacist and his aptitude for experimental work, has rendered me invaluable aid throughout this investigation.—*British Medical Journal*.

NOTICE.

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Book Notices.

Responsibility Restricted by Insane Delusions.
By T. WRIGHT, M.D., Bellefontaine, Ohio.

Announcement of the St. Louis College of Physicians and Surgeons—Session 1879–80.

A Protest against Meddlesome Midwifery.
By H. GIBBONS, M.D., San Francisco.

Michigan College of Medicine—Announcement for 1880.

Ovariectomy—Patient 67½ years—Weight of Tumour, 60 Pounds—Extensive Adhesions—Recovery. By W. F. McNUTT, M.D., F.R.C.P., Edinburgh.

Valedictory Address to the Graduating Class of the Medical Department of the University of

California. By W. F. McNUTT, M.D., L.R.C.P. pp. 80.

On the Internal Use of Water for the Sick, and on Thirst—A Clinical Lecture. By J. FORSYTH MEIGS, M.D. Philadelphia: Lindsay and Blakiston.

Paquelin's Thermo-Cautery with Wilson's Antithermic Shield in Epithelioma of the Cervix Uteri. By H. P. C. WILSON, M.D., Baltimore.

Malignant Degeneration of a Fibroid Tumour of the Uterus—Large False Aneurism in the Substance of the Growth. By Drs. ALBERT N. BLODGETT and CLIFTON E. WING, Boston.

First Steps in Chemical Principles. An Introduction to Modern Chemistry, intended especially for beginners. By HENRY LEFFMANN, M.D. Edward Stern & Co., Philadelphia. 1879.

This little book of fifty-one pages is intended to introduce those unacquainted with the study of chemistry to the more important principles upon which that science is based. The subjects of notation, nomenclature, and atomicity are unusually well explained, being put in a form that seems admirably suited to the youthful beginner. We think, however, it would meet the wants of our school children in a much greater measure were it enlarged so as to include the principal properties, sources, and preparations of fifteen or twenty of the most useful elements and combinations. This would obviate the necessity of a second primer with its additional cost.

Diseases of Women. By T. GAILLARD THOMAS, M.D., &c., &c. Fourth edition, thoroughly revised. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson. 1878.

This, which is undoubtedly the most practical and systematic work on the subject at present published, has been so long before the profession that its great merits are well known and fully recognized.

The peculiar arrangement of the work renders it admirably adapted to the wants of the

student, while it will be found sufficiently full of detail for the general practitioner. Thomas and Emmett should both be read by every practising physician; but to the student preparing for examination we would decidedly recommend Thomas. The world is deeply indebted to the Woman's Hospital of New York for the two admirable works of Thomas and Emmett on the Diseases of Women.

Medical Chemistry, including Outlines of Organic and Physiological Chemistry. By C. GILBERT WHEELER, Professor of Chemistry in the University of Chicago, and formerly Professor of Organic Chemistry in the Chicago Medical College. Second and revised edition. William Wood & Co., New York. 1880.

This work contains over 400 pages, has good print and binding, and presents a neat and creditable appearance.

We regret that time has not permitted us to peruse its contents more carefully; but from reading a considerable portion of this volume we are led to regard it as an excellent text-book for the use of students of medicine and organic chemistry in general. Several points have struck us as being but feebly elucidated in the other text-books of organic chemistry that have come under our notice, and in scanning the pages of Professor Wheeler's book we are forcibly reminded that these very difficulties are satisfactorily cleared up. With respect to the chemistry of physiology, it may be said that the author's treatment of the blood, the theory of respiration, and the urine, is at once concise and comprehensive, and exhibits the results of the most important recent scientific researches.

The Science and Practice of Midwifery. By W. S. PLAYFAIR, M.D., F.R.C.P. Third American Edition. Revised and corrected by the Author, Philadelphia: Henry C. Lea; 1880; Toronto: Hart & Rawlinson.

The appearance of a third edition of a medical work within little more than three years is almost inexplicable, but from those who have been fortunate enough to obtain a copy of former editions the enigma disappears. In our opinion, this stands first among the obstetric works of

the day. Since the appearance of Tyler Smith's admirable lectures we have met with no work on midwifery so charming in its style and so clear in its precepts. It may not be better in principles and practice than Leishman, although in a few points we think it is; but its manner of stating them is so captivating and easy that when the reader opens the book he is very loath to close it.

Few men have the faculty of stating their opinions in so few words without their writings having a cramped or jerky style; but in Playfair, while his periods are short they are always smooth. The whole work, the author tells us, has been revised, and a notice of the more important additions to obstetric science introduced, prominent among which is a full chapter devoted to the discussion of Gasto-Elytrotomy and the Cæsarean Section. The American editor, as usual, has introduced in brackets a number of points more particularly connected with American practice, and this, coupled with the fact that the author has revised the edition specially for this country, will show its adaptation to the needs of Canadian and American readers.

A System of Medicine. Edited by J. RUSSELL REYNOLDS, M.D., F.R.S., with numerous additions and illustrations by HENRY HARTSHORNE, A.M., M.D. In three volumes. Philadelphia: Henry C. Lea; 1879; Montreal: Dawson Bros.

An American reprint of this inestimable English publication, only completed about a year ago, is to be placed within the reach of the practitioners of this continent at a price which must prove fatal to the Old Country edition. With the morality of such a procedure we have not here to concern ourselves, but merely to announce the receipt of the first of the three volumes constituting the American reprint, and to acquaint our readers with its characters and contents.

Volume I. contains the English prefaces to all the volumes and the introductory chapter by the English editor. It is then divided into two parts; the former being devoted to the consideration of "General or Systemic Diseases," as in the English edition, and containing supplementary chapters by the American editor

on "Rötheln," "Chlorosis," and "Scrofula." Dr. Hartshorne has also inserted (within brackets) in the body of each article whatever annotations or addenda the late progress of science or special American experience has appeared to render necessary in order to make each article *au courant* with the times. Part Two commences the consideration of Local Diseases, and, in this volume, deals with "Diseases of the Nervous System." Here the American editor has intercalated sections upon "Hystero-Epilepsy" and "Athetosis." Of the individual articles we need scarcely speak, and shall content ourselves with saying that each is excellent throughout. Indeed, in view of the names of their authors (including Aitken, Anstie, Bastian, Begbie, Bristowe, Buzzard, Chambers, Fox, Garrod, Gee, Gull, Harley, Hutchinson, Hughlings Jackson, Maclean, Maudsley, Parkes, Radcliffe, Russell Reynolds, Ringer, Wm. Roberts, and Henry Sutton), further criticism would seem to savour of temerity. The publisher's work has been, in all respects, done well. The office of American editor has been no sinecure; but we cannot congratulate Dr. Hartshorne upon the self-imposition of a task so unfair in its outcome towards the Old Countrymen.

In view, therefore, merely of the merit of the articles themselves we would strongly advise all those who have not the English edition, and whose consciences are not tender on the subject of literary piracies, to possess themselves at once of this invaluable work now offered at an astonishingly low figure.

A System of Midwifery, including the Diseases of Pregnancy and the Puerperal State. By WM. LEISHMAN, M.D. &c., &c. Third American edition, revised by the author; with Additions by John S. Parry, M.D. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson. 1879.

That this book possesses real merit is sufficiently attested by the call for a third edition in so short a time, and those who have read the former editions will not be surprised at the general praise it has received. But while there is much in it that is worthy of admiration, yet we must take exception to some points in which

we think the author is not as positive as he should be in fundamental matters of doctrine. We are glad to find the plates representing the positions of the child's head in the pelvis correctly numbered, as from a mistake in that respect the works of Hodge, Tyler Smith, and even Playfair, are all calculated to mislead the student; but when the author says that "albuminuria of pregnancy is comparatively an innocuous disease," we hardly think he does justice to himself, for in the next line he says "that childbed mortality is directly or indirectly increased in some measure by the presence of albumen in the urine is a fact which no one in these days will gainsay;" and when he goes on to say that albuminuria not only increases childbed mortality but is supposed to be a factor in the production of such childbed accidents and complications as convulsions, hæmorrhage, headache, disorders of digestion, phlegmasia dolens, perimetritis, and possibly puerperal fever, we submit that it can hardly be considered such a harmless or innocent complication. Again, we think the author is too sweeping in the assertion that in cases in which the expulsion of the placenta is left to nature it will almost invariably be found that it is not the foetal surface but the edge which presents, as described by Lemser, Cazeaux, and Matthews Duncan.

We are satisfied, from repeated observation, that in quite a large number of cases the foetal surface of the placenta does actually come first, inverting the bag of membranes precisely as if withdrawn by traction on the cord, and we are inclined to believe that the position of placental attachment determines whether the foetal or uterine surface comes in advance, when no traction is made on the cord.

In speaking of the treatment of funis presentation he does scant justice to Dr. Thomas, by leaving the inference that nothing but position is recommended by him in his postural treatment; and in speaking of post-partum hæmorrhage, in September, 1879, we think he might have been more definite in regard to the value of hot water injections, than to say incidentally that "in some cases in which cold has failed the injection of water at 110° F. will sometimes produce the most favourable results."

We have tried the hot-water injections into the uterine cavity often enough to satisfy ourselves both of their safety and value, and that by their use the perchloride of iron, as recommended by Barnes, may often be dispensed with.

One great advantage in the use of hot-water injections into the uterus is the promptitude with which reaction takes place and, as far as we have seen, the absence of that jactitation or restlessness which is so often associated with loss of blood.

We are sorry to find so good a writer give so uncertain a sound in regard to plugging for post-partum hæmorrhage; for although he does say, "as it has proved inefficacious it has been abandoned . . . and in no sense does it benefit the patient," yet his whole statement is so undecided that the reader is in doubt as to whether he would condemn or approve the practice. If there be one thing more than another in which the obstetric teacher should be decided, it is in condemnation of plugging for the arrest of post-partum hæmorrhage.

Nevertheless, the work may be regarded as one of the standard authorities on midwifery of the present day, and we can heartily recommend it to the notice of the general practitioner as a safe and reliable guide to modern obstetric practice. In the interest of humanity we would suggest to publishers the advisability of using less highly glazed paper in the printing of medical works, as we have found the reading of Leishman by night to be very trying to the eyes, and it is well known that medical men do most of their reading by artificial light. Commend us to such paper as the *Obstetrical Journal* is printed on.

FORMULÆ.—ERGOT IN PHARYNGITIS.—In chronic pharyngitis, where the blood-vessels of the pharynx are enlarged and tortuous and the secretion moderate, Mr. Dabney reports (*American Journal of the Medical Sciences*) excellent results from the following:

R Ergotine gr. xx;
Tinct. Iodinii fl. 3j;
Glycerinæ fl. 3j. M.

Sig. Apply to the pharynx freely twice daily with a camel's-hair brush.

Meetings of Medical Societies.

TORONTO MEDICAL SOCIETY.

The Society met at 8 p.m., January 15th, the President, Dr. Workman, in the Chair.

Dr. Graham presented a patient, A. B., a painter, aged 23, admitted into General Hospital, January 12th, 1880. Had pneumonia and endocarditis ten years ago. Healthy after this until eighteen months ago, when he had an attack of hemiplegia which lasted about four weeks. Had a second attack six months ago, but ill only one day. About seven weeks ago had a third attack, and fell down while painting. At present he has partial paralysis of the right side of the body and face—the tongue when protruded inclines to the right side. Sensation is much impaired, is unable to taste with right side of tongue and palate, has difficulty in swallowing, is unable to articulate distinctly, has aphasia; eyesight bad; memory considerably impaired. Physical examination showed apex beat of heart to be a little to the left and one and a half inches below left nipple; action irregular; a mitral regurgitant murmur can be distinctly heard. Diagnosis, slight paraplegia and aphasia from embolism of the left middle cerebral artery. The patient is taking potas. iodid. and tr. calumb.

Dr. McDonald presented a portion of epithelioma removed from Mrs. K., aged 35. Had two children. Had pain in back last two years. About two months ago had severe uterine hæmorrhage, returning every two weeks after this. On examination last week found a large growth of epithelioma involving a portion of vagina, the cervix, and extending well up into uterus. On January 11th, removed as much of growth as possible, using the knife, scissors, and curette; then applied nitric acid. Prognosis bad, as growth will probably recur.

Dr. Graham reported a case. Male, aged 38. Had disease of rectum thirteen years. There was a stricture commencing about one inch above sphincter and extending upwards one and a-half inches. He had had syphilis. His father died from some disease of rectum (probably cancer). The Doctor asked: 1st. If in such a case there was any certain means of ascertaining whether the disease was syphilitic or

malignant? 2nd. Supposing it to be malignant, would it be advisable to attempt to remove it? The President suggested the result of treatment as an aid to the diagnosis, and Dr. Covernton mentioned some reports of cases of excision of rectum.

Dr. White reported a case. Mr. A., aged 40, a grain dealer, in jumping off a train felt a sudden severe pain in right groin. The pain partially passed off, and he went about for three days, when the pain again became severe, and on examination the Doctor found a small swelling in the right inguinal canal, and the patient had all the symptoms of strangulated hernia. All attempts to reduce it by taxis failed. After a consultation with surgeons it was decided to operate. On opening the inguinal canal, a tumour was discovered about $1\frac{3}{4}$ inches. There was doubt as to its nature, and a fourth man (a "brilliant" surgeon) was called in. The majority decided that it was better to remove it (Dr. White alone dissenting) and it was cut off. It was then discovered to be a portion of the appendix vermiformis. The patient died in three days from peritonitis.

Dr. Nevitt presented an encephaloid liver. T. M., aged 52. Had been a soldier. Enjoyed good health until August, 1879, when he began to be troubled with dyspeptic symptoms. About November he noticed a smooth, firm tumour in the middle line of abdomen, and shooting pains extending from tumour to spine. Appetite became poor. Lost flesh, no vomiting; pains increased. A week before death became slightly jaundiced. Died January 14th, 1880.

P.M. twenty-six hours after death. Body exceedingly emaciated. Abdomen opened. Liver enlarged, adherent to the peritoneum, stomach, pancreas, diaphragm and other parts surrounding. In front, the adhesions were recent and easily broken down; behind they were very firm, requiring considerable force for their separation. The posterior portion of right lobe was softened—the left firmer. The entire surface was spotted by yellowish-white patches in size varying from a speck to a small orange, more or less roundish in form, radiated in appearance, and with a slight cup-shaped depression in the centre. Some of these spots broke down and showed a soft mass of encephaloid matter. The

pancreas was implicated. Large indurated glands could be felt along side of the vertebral column on each side. The cardiac end of the stomach was occupied by a villous growth of some magnitude, the spleen was normal in appearance, though small. The left kidney was pale and rather large, weighing eight ounces.

At a meeting, January 29th, the 2nd Vice-President, Dr. Riddell, in the Chair.

Dr. Graham reported a case of death from progressive muscular atrophy. Mrs. M., aged 56. Was ill $1\frac{1}{2}$ years ago. Had darting pains throughout the body, and some swelling of joints, supposed to be rheumatism. Two months before death her friends noticed that she was unable to hold her head up properly. She grew worse rapidly. Four weeks after this she began to have difficulty in swallowing. When he (Dr. Graham) saw her a few days before death, she appeared very ill, was emaciated; pulse, 110; breathing, 40 shallow; unable to swallow solids; the trapezius especially, and also other muscles of neck, right shoulder, and thorax were atrophied. No stricture of œsophagus; no loss of sensation. The fifth and sixth cervical vertebrae were very prominent. Previous to her illness she had received two injuries, one from falling down stairs, another from a blow on the head.

Also a case in practice showing the importance of the sphygmograph as an aid to diagnosis. Mr. M., two years ago had acute rheumatism lasting 8—10 weeks. Never got very strong after this. Became ill in July last. When seen in September he was anæmic, quite yellow, had palpitation of heart, and a blowing systolic murmur heard at base, liver slightly enlarged, spleen normal, had hæmorrhoids. Diagnosis, serious disease of aortic valves. A few days after this the sphygmograph was used and showed a normal pulse tracing. The prognosis became therefore more favourable, and in the supposition that the disease was to a large extent anæmia. Tr. ferri was prescribed, and he has taken this constantly since (over three months). When seen again by the Doctor a few days ago he was very much improved. There was still a slight but indistinct murmur.

Dr. Winstanley reported a case. Mr. A., said to have had a fit a week before death.

Had another on the morning of the day he died. When seen by Dr. Armstrong, he was very pale and perspiring freely. Was told to keep quiet, but he did not do so; and a few hours after he became suddenly weak, got pale, and died in a few minutes. The post-mortem examination showed heart flabby but otherwise nearly normal. The aorta was much dilated at its commencement, and had considerable atheromatous deposit in its walls. Valves healthy, but insufficient on account of the dilatation of the aorta. The edge of the liver showed incipient cirrhosis, a clot was formed in its substance, partly an old one about the size of a hen's egg, and another smaller one quite fresh. Kidneys congested. Skull not opened.

The Doctor also gave an account of two cases of purpura occurring after measles.

Dr. Covernton reported a case of writer's palsy. Treatment: rest, tonics, and faradisation. The patient is growing worse. Dr. Cameron thought the treatment by faradisation was wrong, as it tended to stimulate muscles already worn out; and in such a case as this, the continued current which acted as a tonic, was indicated.

Dr. Nevitt presented a specimen with a report of case. Mrs. C., aged 64. Previously in good health. On January 1st, 1880, while eating her dinner, suddenly complained that something had stuck in her throat. Probangs were passed, but nothing discovered to account for symptoms. The feeling of having something in her throat continued for four days, when she vomited a quantity of blood, about twelve ounces, of a bright red colour. At this time there was a diffused rather firm swelling on right side of neck. The attacks of bleeding continued, and after a profuse hæmorrhage on the morning of the 6th, she fell back dead. P.M. 38 hours after death. Trachea filled with a clot. Larynx healthy. There was a small hole on right side of pharynx, leading to a cavity containing some dark clots. An orifice was found in superior thyroid artery communicating with the cavity. No foreign body was found.

Mr. Thos. H. Monk presented some charts showing the extent of various diseases during the last few weeks; and also read a draft of a bill which it is proposed to ask the Dominion Parliament to pass.

Dr. Covernton then read a paper on "Perforating Ulcer of the Stomach."

Miscellaneous.

PROLAPSUS ANI.—Dr. T. M. Lownds, in *British Medical Journal*, says that if a grain of Barbadoes aloes, with two or three grains of pepsin, in a pill every evening after the last full meal will usually give immediate relief.

THE THERAPEUTICAL ACTION OF COLD.—Dr. W. H. Thompson, in *Medical Record*: Therapeutically cold has five actions: (1) tonic, (2) styptic, (3) antiphlogistic, (4) anesthetic, (5) antipyretic. In the first three cold acts only on the vasomotor system as a pure irritant neurotic. In the last two it acts simply upon physical principles.

KEITH, of Edinburgh, has performed ovariectomy seventy times in succession without a fatal result, and one hundred times with only three deaths. In his hands the operation has thus become less fatal than amputation of the leg or even of the arm. Why is this operation so safe in the hands of one man and so fatal in the hands of others?

MALARIAL BRIGHT'S DISEASE.—By malarial albuminuria I understand (says Prof. Da Costa) a condition characterized by albumen in the urine, with granular and hyaline tube-casts coming on slowly, associated with dropsy, and as gradually passing away. In the long run, and with proper treatment, such cases usually recover. Their very essence consists in their gradual development, with impaired blood, dropsy, and bloody urine. Such cases have no acute stage.

M. GRASSET made a communication on the *Comparison of the Lesions of Leprosy and Scleroderma*. M. Grasset has at present in his service one patient attacked with leprosy and another with scleroderma. He has studied these two diseases with great attention, and has thus been able to draw a comparison between the two diseases: this comparison eventuated in the finding of striking analogies. M. Grasset thinks that in leprosy is to be seen only a form of scleroderma. So he proposes

to compare the tubercular leprosy of our day with scleroderma, and to the single disease thus constituted to give the name of tubercular scleroderma.—*Le Prog. Méd.*

A CURE FOR NETTLERASH.—Dr. Schwimmer (*Pest. Med.-chir. Presse*) gave in a case of urticaria of one year's duration the following prescription: R Atrop. sulphat., gr. .01; aq. destil., glycerin, aa gr. 2; pulv. tragacanth., q. s. F. pil. x. S. A pill morning and evening. By the third day remarkable improvement was noticed and a rapid cure followed. In another case of chronic urticaria with hyperidrosis one milligram of atropia daily for eight days made a perfect cure. A third obstinate case yielded rapidly to the same treatment.

PREMATURE LABOUR INDUCED BY HOT WATER INJECTIONS.—Prof. Benicke gives an account in the *Berliner Klin Wochenschrift*, No. 52, 1879, of a case of hydramnion in the eighth month of utero-gestation in which he found it necessary to induce premature delivery. The douche was employed and the water used at a temperature 120° F. This was repeated at intervals of five or six hours for one day and a half, when strong labour pains came on and an easy delivery was effected. Benicke prefers this method to all others on account of its absolute safety to both mother and child. He claims that there are on record but two other cases (by Runge and Waechter) in which this plan was solely relied upon!

THE EVIDENCE OF STILL BIRTH.—Dr. Abbott, after an elaborate and careful consideration of all the points in connection with this subject, sums up the results of his investigation in the following words:—"The medical man may infer that a child has lived during and after its birth (1) when the diaphragm reaches only to the fifth intercostal space; (2) when the lungs more or less completely fill the thorax; (3) when the ground colour of the lungs is broken by insular marblings; (4) when by careful experiment the lungs are found to be capable of floating; (5) when a bloody froth

exudes from the cut surfaces of the lungs on pressure; (6) when the air cells are visible to the naked eye. These proofs, complete as they are, may be strengthened by the cicatrization of the umbilicus, the healing of the epidermis, the closure of the foetal ducts, and the size of the osseous nucleus of the inferior epiphysis on the femur. The existence of milk, sugar, starch and medicines in the stomach, determined by the appropriate chemical tests, and by the presence of faecal matter other than meconium in the lower intestines of course show that the child has lived.—*The Boston Med. and Surgical Journal.*

BROWN PAPER AGAINST THE COLD.—The "old woman's" remedy for a "cold on the chest," a sore-throat, or a bruise, which consisted in an application of brown paper steeped in beer or vinegar, owed its efficacy to the heat-retaining properties of the paper. A wet pad of this material, so far as the surface next the skin was concerned, acted almost as well as a layer of wet linen-rag protected with a thick covering of flannel. In short, stout paper of the commonest sort is an effective non-conductor, and may be most advantageously employed as covering for beds or to eke out scanty clothing. If this were generally known among the poor, strong sheets of thick paper would be stitched to the back of ragged quilts, with the result of rendering many a poor family comfortable because better protected from the bitter weather of these winter nights. A piece of thick paper inserted between the lining and the cloth of a waistcoat, or in the back of a thin coat, will render it warm as well as light. The suggestion is a small one, but is simple to carry into effect, and will be found effective.—*London Lancet.*

INTRAVENOUS INJECTIONS OF MILK AND OF SUGAR.—Mm. Montard Martin and Ch. Richet have made a series of experiments upon this subject, of which the following are the conclusions:—

1. The injection of a great quantity of milk kills by bulbar anæmia.

2. The introduction of lactic ferment into a vein appears to be without effect.

3. Injections of concentrated solutions of sugar kill by bulbar anæmia.

4. Milk injected into the venous system has no immediate action upon the pulmonary circulation, nor upon muscular contractility, nor upon the cerebral nervous centres of the nerves.

5. Sugar injected into the veins is very rapidly extracted by the urine, and provokes an intense polyuria, and an abundant intestinal flux.

6. The symptoms which follow massive injections of milk are: Vomiting, polyuria, deglutitionary movements, and later acute cries, defective respiratory innervation, contracture of the limbs, and arrest of the heart.

7. At the autopsy of animals killed by injections of milk or sugar, there is found marked intestinal congestion; and very constantly sub-endocardial ecchymoses.

8. From a therapeutic point of view the injection of milk is a useless and dangerous operation, which it is absolutely necessary to proscribe.—*Gazette des Hôpitaux*.

ESSENTIAL ASCITES. — (Professor Potain, Hospital Necker, *Jour. de Méd. et Chir. Pratiques*, Oct., 1877). Ascites may show itself in certain cases without it being possible to consider it other than of essential origin. A case was presented of a woman with enlarged abdomen, which dated back a fortnight, during which time she had had considerable fever. Neither the heart nor liver were affected, while the rapid progress of the disease eliminated such causes as tubercule and cancer. In such cases, in the absence of all other causes, we are obliged to admit a primitive ascites. This sometimes follows a chilling, especially if the belly itself be exposed to cold. This is observed in drunkards who sleep off the effects of drink extended flat upon the earth. The patient in question is a laundress, consequently she is often exposed to having her abdomen wet. It is true that she has been long exposed to this influence, but it must also be admitted that often in these subjects an unknown modification of the organism may occur which lessens their resistance to continued causes. Her age and general enfeeblement, which is marked, and probably due to her mode of life, may also be

involved as causes. However this may be, the prognosis in this form of ascites is much less grave than when it is symptomatic. The effusion may last a long time. At the outset it was a subacute peritonitis, which accounts for the excessive tympanites, and resulting paresis of the intestines. This, with the febrile state, calls for local blood-letting; at a more advanced period, she should be put upon purgatives and diuretics only.—*St. Louis Clin. Record*.

HYDRATE OF CHLORAL.—Dr. H. H. Kane, of New York City, U. S. A., specially requests members of the profession with any experience whatever in the use of the Hydrate of Chloral to answer the following questions, and give any information they may possess in reference to the literature of the subject:—1. What is your usual commencing dose? 2. What is the largest amount you have administered at one dose, and the largest amount in twenty-four hours? 3. In what diseases have you used it (by the mouth, rectum, or hypodermically), and with what results? 4. Have you known it to affect the sight? 5. Have you ever seen cutaneous eruptions produced by it? 6. Do you know of any instances where death resulted from or was attributed to its use? If so, please give full particulars as to disease for which given; condition of pulse, pupils, respiration and temperature; manner of death; condition of heart, lungs and kidneys; general condition, age, temperament, employment, etc., etc., etc. If any autopsy was held, please state the condition there found. 7. Have you seen any peculiar manifestations from chloral—as tetanus, convulsions or delirium? 8. Do you know of any cases of the chloral-habit? If so, please state the amount used, the disease for which the drug was originally administered, the person's age, temperament and the present condition of the patient. Physicians are earnestly requested to answer the above questions, in order that the resulting statistics may be as full and valuable as possible. All communications will be considered strictly confidential, the writer's name not being used when a request to that effect is made. Address all letters to Dr. H. H. Kane, 366 Bleeker street, New York City.

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U. OGDEN, M.D.,
EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London,
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Selections: Medicine.

CONTAGION.

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The social conditions through which, in our own country at the present time, the more fatal infectious diseases are enabled to acquire epidemic diffusion are chiefly such as the following:—that persons first sick in families and districts, instead of being isolated from the healthy and treated with special regard to their powers of spreading infection, are often left to take their chance in all such respects; so that, especially in poor neighbourhoods, where houses are often in several holdings, and where always there is much intermingling of population, a first case, if not at once removed to a special establishment, will almost of necessity give occasion to many other cases to follow;—that persons with infectious disease, especially in cases of slight or incipient attack, and of incomplete recovery, mingle freely with others in work places and amusement places of common resort, and, if children, especially in day-schools, and that such persons travel freely with other persons from place to place in public conveyances;—that often on occasions when boarding-schools have infectious disease getting the ascendant in them, the schools are broken up for the time, and scholars, incubating or perhaps beginning to show infection, are sent away to their respective, perhaps distant, homes;—that keepers of lodging-houses often receive lodgers into rooms and beds which have recently been occupied by persons with infectious disease and have not been disinfected;—that persons in various branches of business relating to dress (male and female) and to furniture, if they happen to have infectious disease,

such as scarlatina or small-pox, on their premises, probably often spread infection to their customers by previous carelessness as to the articles which they send home to them, and that laundries further illustrate this sort of danger by carelessness in regard to infected things which they receive to wash;—that purveyors of certain sorts of food, if they happen to have infectious disease on their premises, by carelessness spread infection to their customers;—that streams and wells with sewage and other filth escaping into them are most dangerous means of infection, especially as regards enteric fever and cholera, and that great purveyors of public water-supplies, so far as they use insufficient precautions to insure the freedom of their water from such risks of infectious pollution, represent in this respect an enormous public danger;—that ill-conditioned sewers and house-drains, and cesspools receiving infectious matters, greatly contribute to disseminate contagia, often into houses in the same system of drainage, and often by leakage into wells. Of the dangers here enumerated, there is perhaps none against which the law of England does not purport in some degree to provide. At present, however, they all are, to an immense extent, left in uncontrolled operation; partly because the law is inadequate, and partly because local administrators of the law often give little care to the matter; but chiefly because that strong national opinion which controls both law and administration cannot really be effective until the time when right knowledge of the subject shall be generally distributed among the people, and when the masses whom epidemics affect shall appreciate their own great interest in preventing them.

Whenever that time shall come, probably the

public good will be seen to require, with regard to every serious infectious disease which is apt to become epidemic, that the principles which ought to be accepted in a really practical sense, and to be embodied in effective law, are somewhat as follows: (1) that each case of such disease is a public danger, against which the public, as represented by its local sanitary authorities, is entitled to be warned by proper information; (2) that every man who in his own person, or in that of any one under his charge, is the subject of such disease, or is in control of circumstances relating to it, is, in common duty towards his neighbours, bound to take every care which he can against the spreading of the infection; that, so far as he would not of his own accord do this duty, his neighbours ought to have ample and ready means of compelling him; and that he should be responsible for giving to the local sanitary authority proper notification of his case, in order that the authority may, as far as needful, satisfy itself as to the sufficiency of his precautions; (3) that so far as he may from ignorance not understand the scope of his precautionary duties, or may from poverty or other circumstances be unable to fulfil them, the common interest is to give him liberally out of the common stock such guidance and such effectual help as may be wanting; (4) that so far as he is voluntarily in default of his duty, he should not only be punishable by penalty as for an act of nuisance, but should be liable to pay pecuniary damages for whatever harm he occasions to others; (5) that the various commercial undertakings which in certain contingencies may be specially instrumental in the spreading of infection—water companies, dairies, laundries, boarding-schools, lodging-houses, inns, etc., should respectively be subject to special rule and visitation in regard of the special dangers which they may occasion; and that the persons in authority in them should be held to strict account for whatever injury may be caused through neglect of rule; (6) that every local sanitary authority should always have at command, for the use of its district, such hospital accommodation for the sick, such means for their conveyance, such mortuary, such disinfection establishment, and generally such planned arrangements and skilled service as may, in case of need, suffice for all probable requirements of the district.—*J. Simon, in British Medical Journal.*

SUDDEN DEATH IN ACUTE RHEUMATISM.

The question raised at the last meeting of the Clinical Society by Dr. Goodhart is one of great practical importance and deserves serious consideration. He related a case of acute rheumatism of moderately severe type in a previously healthy young woman, where sudden death occurred whilst under treatment by salicylic acid. Setting aside the hypothesis that the case was one of septic poisoning and not of rheumatism, for which there seems to be no evidence either clinical or *post-mortem*, or that death was due to pulmonary embolism, sufficiently disproved by Dr. Goodhart, three alternatives were presented to the meeting. These were, that death was due to impairment of the muscular wall of the heart, or to the toxic effect of salicylic acid, or to the rheumatic poison itself. It is true that there was pericarditis to a slight degree, but careful scrutiny failed to reveal a sufficient amount of change in the myocardium to account for death from this cause. Dr. Green did well to draw attention to the fact that the existence of a contracted ventricle does not imply absence of marked degeneration, owing to the effect of cadaveric rigidity; but Dr. Goodhart did not rely upon the presence of contraction alone as disproving the existence of marked degeneration. Then comes the important question of the drug itself. Only sixty grains in all had been taken, but its administration was continued to within an hour before death. In the face of the somewhat alarming statements made by Dr. Mahomed, some might hesitate to acquit it of all blame. He testified to having noticed in all patients subjected to this drug marked evidence of failing heart-power in the enfeeblement or absence of the first sound. So far as we know this statement stands almost alone. Salicin and its congeners are now prescribed with remarkable frequency, not only in rheumatism, but in other affections also; yet few of those who prescribe it would venture to say that they have *invariably* met with this significant sign of cardiac failure following its administration. There is no physician who does not closely watch day by day the character of the heart-sounds in every case of acute

rheumatism; and if Dr. Mahomed's statement be of universal application, it is astonishing, to say the least, that it has not been pointed out before. At the same time, it must be admitted that depressing effects have been noted, and have led to the abandonment of the drug in certain cases; but hitherto such cases have been regarded as exceptional, and it is a long leap from the particular to the universal. The drug may be as potent for harm as it is undoubtedly for good, and its use should be directed with caution; but it must not be condemned outright without further earnest inquiry. The discussion the other night will, no doubt, result in particular attention being paid to these points. Lately, the view to which Dr. Goodhart and some other speakers most inclined was, that death was due to the direct action of the rheumatic poison. This is quite conceivable, and Dr. Bristowe lent valuable support to it in his narration of two cases of sudden death not under the salicylic treatment. Apart from actual lesion of the heart-wall, sudden death in acute rheumatism may be conceived to be due either to hyperpyrexia or to cardiac paralysis. Both classes of cases may well come under the head of "cerebral" rheumatism, for in both the medullary nerve-centres are probably involved through the direct action of the rheumatic poison. In this connection it is singular to note that during the last few years (almost coincident with the universal adoption of the salicylic treatment) deaths from rheumatic hyperpyrexia have been very infrequent: whilst we have Dr. Goodhart's statement, on the other hand, that within this period he has met with two other cases analogous to the one he had read. Hyperpyrexia may fairly be put aside in this case. There were none of the phenomena that marks its onset; but that death was due to failure of the heart was evidenced by the ominous rise in pulse-rate noted—a sign which almost induced Dr. Goodhart to discontinue the salicylic acid. The subject is one that certainly requires elucidation; and perhaps the committee of the Society that is engaged upon the subject of hyperpyrexia may be enabled by its researches to throw a side-light upon this other, and quite as inscrutable, class of cases of sudden death in acute rheumatism.—*London Lancet.*

PNEUMONIA OF THE APEX.

Dr. F. T. Roberts read a paper at the meeting of the Metropolitan Counties' Branch, October 22nd, 1879, on "Pneumonia of the Apex." He said that, while the existence of apical pneumonia was admitted in books and by practitioners, it was only by practical experience in the observation of a great number of cases of disease of the chest that he had learned the importance of this affection. His first object was to claim for it more distinct recognition as an acute or sub-acute affection, which, if not diagnosed at an early period, was likely to lead to serious, and often irreparable, mischief. The disease had been met with in his experience under the following circumstances: 1. As the result of direct injury from fracture of the upper ribs; 2. From extension of inflammation from the lower to the upper lobe; 3. Secondary to phthisical disease previously affecting the apex of the lung; 4. In connection with pleuritic effusion, and, perhaps, with other conditions causing condensation of the lung-tissue; 5. In consequence of hæmorrhage into the upper part of the lung; 6. As a primary or idiopathic affection, in most cases obviously due to cold. Having discussed these various classes of cases, the practical lessons as regards diagnosis were next insisted on; in any febrile case not clear in its nature to remember apical pneumonia, and to neglect no pulmonary symptoms, however slight. As to treatment, he did not believe in any definite routine treatment for pneumonia, but preferred leaving the cure of morbid conditions to nature, if she seemed to be doing her work satisfactorily. He recommended cessation from labour, rest in bed, effervescent medicines, or those to check cough, quinine, and counter-irritation by means of small blisters or iodine.—The Chairman (Dr. Habershon) said the paper reminded him of an observation Dr. Addison used to make thirty years ago: "Never give a decided opium in cases of apical pneumonia." He supposed many such cases occurred as had been described by Dr. Roberts, and he particularly referred to a case of severe hæmoptysis caused by an injury received while swimming, which was supposed to proceed from phthisis, and condemned as hopeless, but recovered. These cases were very different from those originating

in tubercular disease.—Dr. F. Taylor said Dr. Roberts had given a very complete account of apical pneumonia; but with regard to the fourth class of cases, in which it was associated with pleuritic effusion, he asked what physical signs were to be depended on for diagnosis from those cases in which pleuritic effusion caused compression of the lung. He had met with the disease more frequently in children than in adults, and thought measles might be a cause of this.—Dr. Goodhart agreed that the affection was more common in children. He thought this might be accounted for by the lung becoming more frequently emphysematous in children, and pleurisy being more common. He agreed in the difficulty of diagnosis felt by Dr. Taylor.—Dr. Roberts, in reply, said one point he wished to impress was, that many of these cases came to him as out-patients. He had not met with the disease in children so frequently as the last two speakers had.—*British Medical Journal*.

CROUP—THE BARKER TREATMENT.—Dr. W. C. Chapman (*Toledo Journal*) reports five cases of croup, four of which ended in permanent recovery; the fifth recovered from the croup, but died in two weeks from pneumonia. The treatment was thus introduced by Fordyce Barker, ten years ago, which consists in an emetic, preferably of "Turpeth mineral" (2-5 grains); veratrum viride, till pulse is reduced to 60, where it is to be kept (two drops every hour is the usual dose); quinine, in tonic doses.

Dr. Chapman is to be congratulated on his success; and we are especially glad that he has reported the cases, since, from his well-known ability as a skilful diagnostician, an expert microscopist, an accomplished pathologist, and a thorough scholar, his report cannot fail to carry conviction. As no membrane was found in two of the cases, and as the presence of membrane even is by no means pathognomonic of true croup, it is probable that, had some less eminent practitioner made the report, most of the cases would have been regarded as of *spasmodic laryngitis* merely; since, as Prof. Smith so truthfully remarks in his work on diseases of children, "there can be no doubt that many of the cases which physicians have published in medical journals as true croup were examples of spasmodic laryngitis."

LOCAL TEMPERATURES.—M. Peter has made a further communication to the Académie de Médecine, on the subject of local temperatures in abdominal diseases. In ascites the temperature of the abdominal wall remains at the average normal 35.5°C ., and sometimes falls below this point. In chronic peritonitis the abdominal temperature rises to at least one degree Centigrade above the normal. He described three types of chronic peritonitis: (1) that which arises by extension from a chronic "phlegmasia" of the stomach, "gastrite sclerreuse;" (2) chronic tubercular peritonitis; (3) chronic cancerous peritonitis. In the first case the temperature of the abdominal wall was raised $.8^{\circ}\text{C}$. above, while that of the axilla was lowered $.5^{\circ}$ below, the normal (temperature of inanition), so that the local excess amounted to 1.3°C . In the second case the local excess of temperature was from 1°C . to 1.9°C ., and presented the remarkable peculiarity that, when the axillary temperature had fallen 2.5°C . (to 34.5°C .), the local was still 1°C . above the normal temperature of the wall (at 36.5°C .), thus being absolutely 2°C . above that of the axilla, and relatively 3.5°C ., a proof of the existence of local thermogenetic centres. In the third case, cancerous peritonitis, the excess of abdominal temperature varied from $.8^{\circ}\text{C}$. to 2.0°C . above that of the axilla. In answer to a question, M. Peter stated that he used an ordinary thermometer for the observations, which, on account of its simplicity, he preferred to instruments of greater precision.—*Lancet*.

A SIMPLE APERIENT.—Dr. Weir Mitchell says: "I frequently employ salt and water in cases of constipation, and generally find it efficient." The late Prof. L. P. Yandell, sr., habitually used and recommended this efficient and homely remedy to his pupils and patients during the last thirty years of his life; and never failed to be grateful to his friend, the lamented Prof. Lewis Rogers, for suggesting the laxative to him. Constipation is almost universal in cities. A teaspoonful of table-salt in a glass of cool water half an hour before breakfast will act with most persons pleasantly and promptly. Some require more and some less of the salt and water, and some cannot use it; but as a rule it works excellently and without diminution of power as long as it may be employed.

Surgery.

TREATMENT OF CANCEROUS ULCERS, AND GROWTHS NOT REMOVABLE BY THE KNIFE.

BY STEPHEN SMITH, A.M., M.D.

The subject of this lecture will be :

The Treatment of Cancerous and Cancroid Ulcers, and Growths not adapted for Removal by the Knife.

You will frequently be at a loss to decide as to the course of treatment to pursue in cases like the one before you. In fact, such cases are usually regarded as not amenable to any treatment, and are allowed to progress from bad to worse, until they terminate fatally. The results of such treatment are great personal discomfort, pain, and misery, and a lingering death. That such cases may often be greatly benefited by treatment there can be no doubt.

This patient is suffering from a return of cancerous masses in the margins of the old cicatrix, which formed after the removal of a cancerous tumour from the breast, one year ago. Nodular masses appear at several points, while, at the upper angle of the scar the surface is extensively ulcerated. Her general health is very good, and at present there is no evidence that cancer has affected internal organs. It may, therefore, be considered a local disease, so far as we discuss methods of treatment.

In the first place, it is evident that this is not a case for removal with the knife. It might be possible to dissect out quite clearly the hard masses, but the ulcerated portion has a base firmly adherent to the deeper structures. An attempt to remove all the tissues involved at this point would be very dangerous, and hence would be an unjustifiable procedure. Shall the case, then, be left to the natural results of the reproductive and destructive process now in progress? I think not. Though we may not hope to cure, we may mitigate and relieve symptoms, and possibly retard the progress of the disease, at least as far as its local manifestations are concerned.

The treatment which I propose to pursue is the application of a caustic. This remedy, though all but discarded by surgeons in the

treatment of cancer, has a place in the therapeutics of malignant diseases not yet accurately defined. It is one of the destructive measures which we may resort to, having capacities limited only by the possibilities of its application. As ordinarily employed, its real virtues are not fairly nor adequately tested. We are advised, or rather permitted, by authorities to apply caustics to ulcerated cancerous surfaces, the growth being no longer amenable to the knife. That is, caustics are recommended as a last resort, when the disease has taken such deep root that it is certain to prove fatal. If useful under such unfavourable circumstances, may they not be far more serviceable at an earlier period? In my experience, caustics judiciously selected, and thoroughly and persistently applied, give the best results of any method of treatment yet adopted.

But, instead of entering into a discussion of the general use of caustics in cancer, I shall limit my remarks to their application in the class of cases represented by this patient—viz., open or ulcerated cancerous growths not removable by the knife. The caustic which I shall select for this case is the anhydrous sulphate of zinc, which is the ordinary sulphate of zinc deprived of its water of crystallization by heat, and reduced to a fine powder. It may be used in the form of a powder sprinkled over the surface, or as a paste made with glycerine, or as a strong ointment. In any of these forms it is the most useful caustic which we have for open surfaces, and it is for the purpose of illustrating its uses that I have brought this case before you.

The employment of sulphate of zinc as a caustic first came to my knowledge through a publication of the late Professor Simpson, of Edinburgh. At the time I read his article a case was in my ward at this hospital, which was well adapted to test its special virtues. The history of that case, and one or two others in which this caustic was used, will illustrate the methods of employing it, and the results which follow.

Before I detail those cases, I will apply the caustic to these cancerous formations, and notice some points made by Prof. Simpson. The forms that I may use are as follows : on the open sur-

face I may apply the powder simply, or it may be made into a paste with glycerine, one ounce of the dried powder being used to one drachm of glycerine; or a caustic ointment may be formed with an ounce of the dried sulphate to two drachms of the axunge. Either of these preparations are useful on open surfaces. I have selected the powder because I found that it was the only one of these preparations ready for use. In dusting the powder over the surface, it should be so thickly applied as to cover the exposed tissues to the depth of an eighth of an inch or more. That it is not a painless caustic is evident from the complaints of the patient, but it is by no means as painful as many other caustics in popular use. The pain continues but a short time generally, and patients rarely hesitate about a reapplication. There is but slight tendency, as you see, in the caustic to spread, and I readily control it by absorbing the surplus with cotton. After the caustic has been on the wound three or four hours, any liquid residue should be removed by a swab of cotton and a hot poultice applied. It will require five or six days to separate and detach the slough. It is a feature in the action of this caustic that the slough is, for the most part, white, and is not offensive. If any diseased tissue remain at the bottom of the wound after the slough is completely removed, reapply the caustic as before; but if a healthy surface remains, apply a simple dressing, as balsam Peru.

It will occur to you that it may be as dangerous to reapply the caustic to the base of an ulcer situated over important parts as to attempt removal by dissection. But this is not true, especially when you are applying a caustic which may be applied so lightly as the powdered sulphate of zinc. By very lightly sprinkling the fine powder, the thinnest possible slough may be removed. An additional safeguard is found in the local inflammatory action established by the caustic, which tends to protect underlying parts from injury.

In treating the hardened masses or nodules, we must not apply the powder itself, nor as made into a powder or paste. For, though it may in these forms irritate the skin, it will not break the surface; that is, it will not act as a

caustic where the epithelium is entire. This peculiarity, says Prof. Simpson, "is at once an advantage and a disadvantage: an advantage in so far as it prevents all fear of the caustic ever unnecessarily affecting any of the healthy contiguous surfaces and parts, and renders its application and use far more simple and certain; and a disadvantage, because, when we wish to apply it to a non-ulcerated structure, we must first remove the epithelium by a small blister, or more effectually by the application of an alkaline or acid caustic." I have frequently experienced the advantages to which Prof. S. alludes, but never the disadvantages, because I find in another composition of the caustic an agent capable of destroying the skin. If the dried sulphate of zinc powder is mixed to a paste with the strong sulphuric acid, a caustic is produced of the greatest energy, and yet having all the good qualities of the other forms of the sulphate of zinc caustics. This preparation is an inert-appearing mass, resembling the plaster used by masons, and will keep any desired length of time. For the reasons given, I select this caustic with which to treat the cancerous growths still covered with the integument. It is best applied with a stick or glass rod. In order to prevent pain, I will first apply the strong carbolic acid to the tumors as an anæsthetic. The surface immediately becomes white; serum is next effused, raising a distinct wheal, and now the local anæsthesia is complete. I will apply the caustic with this pointed stick, though a small glass rod would be better. Dipping the end into the caustic, I make a series of lines, and cross them at short intervals, rubbing the caustic into the furrows until the whole thickness of the skin is charred along the furrows. This operation, you see, is comparatively painless. A poultice must now be applied, as in the former case, and in about a week the skin will separate. On the reapplication of the caustic the powder may be preferable to this form, owing to the necessity of penetrating to a slight depth.

In regard to the action of the caustic, I cannot do better than to summarize Prof. S.'s publication. He states that the part to which it is applied is rapidly destroyed to a depth corresponding to the thickness of the superimposed

layer; the slough is of a white color, and separates usually on the fifth or sixth day, leaving behind it, when the whole morbid tissue is removed, a red, granulating, healthy, and rapidly cicatrizing wound. This slough shows no tendency to chemical or putrefactive decomposition, but is firm in texture, and free from taint or odour; the local inflammatory reaction around a sulphate of zinc eschar is generally light and transient; there is no marked effusion or swelling in the surrounding parts, except where the caustic was used in the neighbourhood of loose cellular tissues; the general system is not affected by its absorption, nor are there any constitutional symptoms, however freely and lavishly it is used.

It must be apparent to you that we have, in the sulphate of zinc, a caustic which, in its various forms, is adapted to a great variety of conditions. Prof. Simpson sums up its advantages, as compared with other caustics, as follows: "1. Its powerful escharotic action; 2. The rapidity of its action; 3. Its great simplicity and manageableness; 4. Its facility of application; 5. Its non-tendency to deliquesce or spread; 6. Its perfect safety; 7. Its efficacy." He speaks hesitatingly as to the seventh statement, but adds that he has seen not only the surface of cancrroid and cancerous ulcers speedily and perfectly excavated by its application, but the surrounding characteristic induration become at the same time rapidly absorbed, and the remaining wound very speedily cicatrizes. He has also found epithelial or cancrroid ulcer of the cervix uteri, under the local application of powdered sulphate of zinc, exfoliate its ulcerated surface, have its sanguineous and seropurulent discharges arrested, the parts temporarily, if not permanently, healed, and the patient's health, and strength, and spirits restored, though, on first using the caustic he believed the disease to be altogether beyond the reach of any remedial measure.—*New York Medical Record*.

TO REMOVE NITRATE OF SILVER STAINS.—Take ammonium chloride, 10 parts; corrosive sublimate, 10 parts; distilled water, 100 parts—keep in a stoppered bottle.

TREATMENT OF GONORRHOEA.

Professor Zeissl relies mainly upon injections in the treatment of gonorrhœa. He begins with weak solutions of the metallic salts in the acute stage. He claims that by their use much discomfort will be relieved, and micturition will be rendered freer and less painful. He proposes at the start a solution of permanganate of potash, of the strength of about a quarter of a grain in six ounces of distilled water. This is injected four times a day. Sometimes, he says, every trace of the disease will have disappeared in a week. If at the expiration of this time there is no improvement, the solution is made a little stronger, but he never increases the strength beyond two grains to six ounces (.15 : 200). He approves of changing the injection occasionally, as after prolonged use any injection will lose its effect. When the permanganate fails, he uses a solution of sulphate of zinc of the strength of three or four grains to the ounce, gradually increased to six grains. This failing, insoluble substances, such as bismuth or kaolin, are injected, suspended in water, in the proportion of a drachm to six ounces (5. : 200). Or he uses *R. Zinc. sulphat., acetat. plumbi basici sol., āā, 2 grammes, aq. dest. 200 grammes*. Powders in suspension will remain in the urethra for a considerable time, till the next urination at least, and sometimes, he states, for two weeks or longer. They are sometimes expelled from the prostatic region during difficult defecation in the form of little granules adhering to the filaments formed by the prostatic secretions and mucus. If the discharge still persist, a bulbous bougie, No. 10 to 14 of Charrière's scale, is oiled and then dipped in bismuth or kaolin, and carried as far as the sphincter vesicæ, where it is allowed to remain for five or ten minutes. The usual astringent injections are also employed. He also uses the following: *R. Pulv. kaolini, glycerinæ pur., āā, q. s. ut fiant bacilli tenues, longitudine pollicis, No. xx*. Four of these, having been well oiled, are introduced each day.

Zeissl's method of examining for stricture is peculiar. For the purpose of diagnosis, an ordinary steel sound (probably not conical) is passed, and while *withdrawing it*, it is claimed, slight

irregularities, caused by "granulations, small polypi, etc.," may "even with but little practice" be easily detected. But, for the "inexperienced," the bulbous bougie is recommended as preferable. All this implies totally different views of the adaptation of these instruments to the treatment of stricture from those entertained here.

Concerning the value of the endoscope the writer does not speak in terms of great praise. Out of "hundreds of cases" in which he has used it, in only two has he found it of any practical service in the way of treatment. This opinion is interesting in view of the fact that Grünfeld and Auspitz in Vienna, by their recent papers on the subject, and by introducing important modifications of the old instrument of Désormeaux, have given to the endoscope a somewhat revived interest.

To internal medication, or the "indirect" treatment of gonorrhœa, Zeissl evidently attaches only a secondary importance. Sometimes he resorts to the balsamic remedies when injections and other local means have failed. With regard to the old view that these remedies are liable to cause albuminuria, he maintains that it is an error, which originates in the following manner: When, to the urine of persons taking the balsams, nitric or hydrochloric acid is added, a white precipitate is produced, but this deposit redissolves on boiling, and will not be produced at all if the urine be first acidulated with a little acetic acid. The deposit consists of the balsamic acid, which is separated and precipitated by the acid reagent. Kava-kava, which has been vaunted of late as a remedy for gonorrhœa, has been thoroughly tested by Zeissl, and with entirely negative result. Of twenty cases treated with it, not one was in the least benefited. The only effect noted was that in some of the cases there was an increased secretion of urine.

Much stress is laid upon the affections of the prostate in gonorrhœal disease. Zeissl believes chronic prostatitis to be the usual cause of gleet. In fact, he asserts that chronic gonorrhœa never exists without inflammation and some enlargement (though perhaps not discoverable by palpation) of the prostate. In proof of this, it is alleged that persons who have

suffered from frequent claps or from long continued gleet have hypertrophied prostate as early as the thirty-fifth year of age or even earlier—a statement, however, that will not be generally accepted without demur. The treatment which Zeissl recommends for chronic gonorrhœal prostatitis consists in passing sounds or bulbous bougies [*sic*], as large as will enter the meatus, for several successive days. For beginners, or those unaccustomed to the use of these instruments, he advises the use of a catheter, so that the operator may be assured by the flow of urine that the instrument is in the bladder, and has not made a false passage [which is showing more regard for the surgeon's feelings than for the patient's]. The writer further observes that "when this treatment has been pursued for a few days, the patient will come with the story that sometimes during the day, or, as more commonly happens, at night, without erotic dreams or erection, a large quantity of thick, tenacious fluid has escaped from the urethra, leaving a sharply defined grayish stain upon the linen. This is the sign that the chronic prostatitis has run its course." We are utterly at a loss to reconcile this statement with facts of common experience. Cases of chronic prostatitis seldom bear catheterism well. There is always an exaggerated sensibility or erethism about the affected region which renders it extremely intolerant of the operation.

From the proximity of the disease to the vesical orifice, any undue violence or irritation is exceedingly apt to awaken all the symptoms of cervical cystitis. Were this the object desired, its attainment could scarcely be more surely accomplished than by the method advised. The occasional passage (perhaps twice a week) of a polished conical sound by a skilled and cautious hand will often in a certain class of cases tend to quell nervous irritability, and by gentle pressure afford a salutary stimulus to the congested blood-vessels; but an indiscriminate use of this means, or its too frequent repetition (especially by an operator who requires a catheter to assure him that he has not made a false route), is a method of treatment to be seriously deprecated.—*New York Medical Journal*.

CASE IN WHICH A MAN WAS STRUCK BY LIGHTNING.

Dr. G. WILKS (Ashford) contributed this case. On June 8th last, four men at work in Romney Marsh were compelled by the violence of the rain to seek shelter. Three of them retired into a lodge; the fourth (J. Orman) remaining under a willow-tree by the window of the lodge to pass urine. Almost instantaneously, the building was enveloped in a blaze of lightning. The three occupants, having recovered from their terror, ran to seek their companion. They saw that the tree had been struck, that Orman's boots lay at the foot of the tree, and his clothes scattered in a line for several yards along the field, while he himself was stretched upon his back six feet away, stark naked, calling to them for aid. The man himself said that he felt himself violently struck across the chest and shoulders, hurled through the air, and dashed upon the ground, and was sure that he never lost consciousness. His clothes were all blown off him, except one sleeve of his flannel under-vest; the leather straps which fastened his trousers were rent like tinder, and his new strong boots torn like paper, while his watch and chain was partly fused. Upon admission to the Ashford Cottage Hospital, the man was found to be burnt all over, more or less; his eyebrows and whiskers were gone; the burns on the back and chest were superficial, those on the abdomen and pubes more deep; down each leg ran a broad three-inch riband-like scar, terminating at the left heel in a small roundish hole; at the right, in a large lacerated wound, through which the os calcis might be felt fractured into several pieces. There was also a compound comminuted fracture of the right tibia and fibula, which bones were protruding through the skin in the course of the riband-like burn. The deepest burns were about where the buckles of the waist-belt and garters, and the watch, must have been; but from the knee to the heel on the right leg, the whole thickness of the skin in the riband-like track was destroyed by the burning. The man was deaf, but singularly placid and cheerful, showing no signs of shock. He made an excellent recovery (though the burns about the fractures,

and the sloughy state of the heel, were complications of some moment), walking across the room ten weeks after the accident. He was now (October) earning his living, with a leg shortened from a half to three quarters of an inch. The following facts were noted: 1. The course of the electrical action was from above downward; 2. The clothes being very wet, their conductivity had been probably heightened; 3. Where the flannel was next the skin, the burns were more superficial; 4. Where the cotton shirt and trousers touched him, the burns were uniformly deeper; 5. Wherever there had been a piece of metal (e.g., waist-belt, jacket-buckles, watch, shoes), there had been an explosion, or at least a development of great heat; 6. The man was aware that he usually raised his right heel from the ground during micturition, which might have caused the fierce explosion on that side; 7. The nervous system had an almost complete immunity from injury. This was attributed to the wet clothes being good conductors.

Sir James Paget has held possession of the clothes (exhibited) for some weeks; seeing them, he felt sure that any one would conceive it impossible that a flash of lightning could do what had been done in the case. He considered the explanation of the man's preservation from instant death, as given by Dr. Wilks, the correct one—as being due to the dampness of the clothes in contact with the body. The course taken by the lightning flash was worthy of note, as showing the possibility it had of completely stripping the body by clean sweeps. The irregularities in the direction of the rents were to be attributed to interference with the direct passage of the current by dry patches of clothing. This was particularly noticeable in the boots, one of which, at the time of the accident partially raised from the ground, was much more irregularly injured than the other. The watch exhibited proof of the same peculiarity. Sir James further added that, in a tree close by the place where the man was, there remained marks to show that the flash had pursued a path down the moist *liber* of the trunk. He considered the man had been excellently treated by Dr. Wilks.—Dr. Broadbent suggested that the stripping of the body might be explained

on the assumption that a body of steam had been rapidly formed, and that its explosive force had stripped the man.—Dr. Althaus remembered reading of a similar case twenty-one years ago, recorded in the *Philosophical Transactions*. He attributed the effects produced by electricity to the mechanical force merely of the discharge, which was very great. He could not but think it strange that the man exhibited no paralysis or affection of the nerve-centers. Possibly the man was a bad conductor of electricity.—*British Medical Journal*.

HERNIA OF THE ADDUCTOR LONGUS

BY JOSEPH RANSOHOFF, M.D., F.R.C.S.,

Prof. of Anatomy and Clinical Surgery, Medical College of Ohio

The sudden and violent contraction of a muscle is occasionally attended with such increase of width and thickness, that the fibrous sheath which holds it in position is unable to withstand the pressure from within, and consequently is ruptured at its weakest point. Through the fissure thus produced the muscle protrudes, forming a soft, yielding, yet elastic swelling. Owing to the comparative rarity of this affection, the following case may prove to be of some interest.

The patient, æt. 24 years, is a teamster, and is compelled to be in the saddle from six to eight hours daily. Two days ago he fell from his horse, landing with great force on the right foot. The fall was followed by an excruciating pain in the right groin, and an inability to use the extremity with accustomed freedom. An examination two hours after the accident revealed the presence of a tumor on the upper portion of the inner surface of the thigh. When the patient was at rest, the swelling was but little painful, and would perceptibly diminish in size, only to increase and become annoying at the slightest exertion.

An examination of the patient displays an excellent physique, with marvellous development of the muscles, and particularly those of the thighs. About two inches below Poupart's ligament, on the inner surface of the thigh, a distinctly conical tumor is observed, which measures about two inches in diameter at its base, and about an inch in height. The skin

covering it presents its normal hue. To the touch, the tumor is soft and yielding, but a relaxation of the pressure causes it to resume its original form. A "false fluctuation" like that obtained in certain fatty growths can readily be distinguished. The absence of pulsatile vibrations and of bruit precludes the possible existence of a traumatic aneurism. When the thigh is adducted, the tumor enlarges in size and becomes very much firmer, while the suffering of the patient is greatly increased. When the thigh is flexed upon the trunk and the leg flexed upon the thigh, the tumor diminishes, and can be but indistinctly felt in the region of the adductor longus. Through voluntary contraction of the muscles, the patient can increase the dimensions of the tumor to their limits, when it becomes as firm as a contracted biceps. The diagnosis of the affection under consideration is never very difficult; the instantaneity of its appearance, increase or decrease according to the condition of the muscle and the absence of all relations to the circulatory apparatus, are sufficiently precise elements to render its recognition a matter of no great difficulty.

The patient was ordered to maintain the recumbent position, with the thigh in an easy position, midway between flexion and extension. Under the use of compresses very firmly applied and the application of an ice-bag to the part, the swelling was rapidly reduced, probably never to return. Unfortunately, I was unable to keep the patient under observation as long as was desirable. Usually from three to five weeks will elapse before the rent in the muscular sheath will have become closed.

It is not difficult to imagine that, under certain circumstances where the protruded portion of the muscle is large and the opening in the sheath small, the reduction of the mass would become a matter not only of great difficulty, but even of impossibility. Operative interference then becomes necessary. An incision being made over the rupture, the displaced muscular mass is exposed and the fissure in the sheath readily detected. Taxis being directly applied, reduction can be effected. Should the tumor be too large to be returned, the rent in

the sheath must be slightly elongated, when the protruded muscle will resume its normal position. This being accomplished, the lips of the rent should be held in apposition by a few sutures, the external wound being dealt with in a similar manner. One case which I have seen treated in this manner made an excellent recovery.—*Cinn. Lancet and Clinic.*

THE VALUE OF PARALLELISM IN THE TREATMENT OF DISEASE AND INJURIES OF THE HIP.

Mr. Bryant read a paper on the value of Parallelism of the Lower Extremities in the Treatment of Hip Disease and Hip Injuries, with the best means of maintaining it. The author first pointed out how it was that in most of the deformities of the lower extremity following a natural recovery with a stiff joint after hip disease or injury, the deformity was due to a want of parallelism of the lower extremities, and then passed on to demonstrate, by means of a simple instrument he had constructed for the purpose, that, as a rule, in such cases the deformity is produced by the *adduction* of the affected limb. He conclusively demonstrated that when the hip joint is fixed in an *adducted* position, and the patient attempts, for walking purposes, to bring the limb vertically downwards, the pelvis on the affected side is tilted upwards, and on the sound side downwards, with the result of increasing the shortening of the affected limb. On the other hand, when the ankylosed limb is *abducted* and the foot is brought down for the purposes of progression, the pelvic line on the diseased side is lowered, and the affected limb is merely apparently elongated; apparent lengthening of the diseased limb in hip disease meaning its *abduction*, and apparent shortening its *adduction*. Under these circumstances it is clear that only by maintaining parallelism of the two limbs in such cases can deformity be prevented. For this purpose the use of the double splint, which he has had slowly built up under his eye at Guy's, was strongly recommended, for he maintained (1) that it is far more comfortable to the wearer than any other he had used or had seen used; (2) that it most thoroughly immobilizes the limb to which it is

applied; (3) it keeps up well-regulated, steady and persistent elastic extension; and (4) maintains absolute parallelism of the lower extremities. In children with acute hip disease, the splint, when well applied, so securely guards against joint movement that the nurse may turn the child over on to the sound side for purposes of cleanliness, and lift him for the performance of the natural functions, with freedom and confidence. In cases of fracture of the neck of the femur or shaft, the same principle is applicable and the same splint of value; in proof of which the author stated that thirty consecutive cases of fracture of the neck of the thigh-bone, occurring in patients averaging seventy-four years of age, left his wards with useful limbs; and that out of forty consecutive cases of fracture of the shaft of the femur, in only four, or one in ten, was there any important shortening, such as an inch. In twenty of the remainder there was no shortening, and in eighteen there was less than half an inch.—*Lancet.*

DISLOCATION AT THE HIP, WITH FRACTURE OF THE FEMUR.

Dr. Oscar Allis, of Philadelphia, has published, in the "Transactions" of the Medical Society of the State of Pennsylvania for 1879, an interesting paper, in which he draws attention to the case in which the femur is dislocated, and also fractured in its shaft. He states that in these cases the dislocation may readily be overlooked, that the head of the bone remains close to the cotyloid cavity, the Y ligament being untorn, and the change in direction of the upper fragment is greater than in a simple dislocation. The directions for treatment are to attempt reduction of the misplaced bone while extension is made on the limb in the line of its axis; and if this attempt fails, the limb and lower fragment should be brought into a line with the upper one, displaced as it is, and afterwards, when union has occurred, reduction of the dislocation attempted, and if that fail the head should be forced into the thyroid foramen, to make a new socket for itself there. If, on the other hand, the fracture be treated with the limb brought parallel with its fellow, when reduction is afterwards accomplished the limb is thrown out of its proper position and may be permanently deformed, and to a great extent useless.—*London Lancet.*

LIGATURE OF THE MIDDLE MENINGEAL ARTERY IN FRACTURES OF THE CRANIUM.—A propos of a successful case by Professor Hueter Marchant (*La France Méd.*, Nos. 1 and 2, 1880) makes certain observations reaching the following conclusions:

Rupture of the middle meningeal artery in direct fractures of the lateral portions of the cranium, with wounds, presents different aspects in the young from those observed in the old. In children, on account of the more intimate adherence of the dura mater to the bone, the blood tends only slightly to spread in the interior of the skull. The effusion is rather extra-cranial, and may be met by ligature of the middle meningeal artery—an operation rendered comparatively easy by its position and by the fact that it has usually been cut more or less sharply by a splinter of bone. In adults the opposite condition exists; the dura mater is separated over a greater or less area by the effusion, which is rather intra- than extra-cranial, external hemorrhage being exceptional. If, suspecting intra-cranial hemorrhage, on account of the symptoms of pressure or the appearance of external hemorrhage, the surgeon is inclined to intervene, he is met with almost insuperable obstacles to the ligation of the middle meningeal artery. These are connected with the volume of the clot to be removed, the position of the artery, four or five centimetres in from the surface, the difficulty of finding the exact point of the wound in the artery, and, finally, of applying hæmostatics in this position.

A NEW METHOD OF DEALING WITH THE URETHRA AFTER AMPUTATION OF THE PENIS.—Mr. Wheelhouse read a paper before the Leeds and West Riding Medico-Chirurgical Society, November 7th, 1879, on this subject. The method had been described (from a foreign source) in the *British Medical Journal* some time ago, and he had applied it with great success in several cases in which it had been necessary to remove as much of the penis as possible. A vertical incision was made through the skin of the pubes, and was carried round both sides of the root of the penis into the raphé of the scrotum. The penis being drawn forward, a

twitch was placed upon it as far back as possible and tightened. The organ was next removed and the vessels were secured. The patient was then placed in lithotomy position, the perineum laid open in the centre, and the urethra (into which a sound had been passed) was dissected from its connections for an inch or more, and was then turned down into the perineum and brought out through the wound in it. The under surface of the urethra was next laid open for half an inch, and its margins were stitched to the edges of the perineal wound at a little distance in front of the anus. A soft Jaques' catheter was passed (and kept in for a few days). The wounds were stitched up, and when healed no trace of penis could be found. The inguinal glands were removed if diseased; and it was a question whether it might not be better to remove the testes in any case, diseased or not.—*British Medical Journal*

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CYSTIC KIDNEY REMOVED BY OPERATION.—Dr. Day exhibited, at a late meeting of the Pathological Society of London, this specimen, which had been removed by Mr. Knowsley Thornton from the left side of a girl aged seven years. The patient presented a large, irregular abdominal tumor, the nature of which was doubtful. A swelling had been observed since the girl was two years of age, but she had not suffered from pain or discomfort. Her urine had been rather scanty, but contained no albumen. Last November an exploratory puncture was made into a part of the tumor between the umbilicus and pubes, where fluctuation was felt. Urinous fluid, which contained albumen, was drawn off to the amount of six pints and a half. The cyst rapidly refilled, and on January 3rd it was removed by Mr. Thornton, and found to be connected with the left kidney. The ureter was impervious, so that there was danger of the distended cyst bursting. Since the operation the patient has gone on remarkably well.

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SAUGEEN AND BROCK.—Dr. Alexander R. Stephen, of Collingwood, is a candidate for the Territorial Representation of Saugeen and Brock in the Ontario Medical Council.

Midwifery.

CLINICAL LECTURE ON THE RETENTION OF FECES.

BY J. MATTHEWS DUNCAN, M.D., LL.D.

Incontinence of feces is a disease of importance, not only because the feces pass involuntarily, but because also this imperfection leads in a peculiar way to depravation of the general health. How long the feces take to pass is a subject that I do not intend to enter upon to-day; but when they pass too slowly and accumulate they may lie in any part of the great gut. The most frequent seat of accumulation is the rectum and sigmoid flexure; but you have cases of enormous accumulation taking place when the sigmoid flexure and the rectum are emptied by cathartics or by enemata. In some rare cases of this kind, where, when the case comes to a happy termination, a potful of feces is evacuated, you may, before the evacuation, feel the accumulation, as I have already said, in any part of the course of the colon. I have seen enormous masses of this kind, which were for a time suspected to be malignant masses, in the right flank; and the worst case I have ever seen presented the accumulation in the epigastric region; an immense accumulation of feces could be felt, forming a hard tumor in the region of the stomach.

I shall now read to you a case illustrating a common form of accumulation which implies retention of feces. Indeed, cases are recorded—though I do not ask you to believe them implicitly—where a woman only defecated every three months. The case which I am about to read is in “Martha,” on account of phlegmatia dolens of a peculiar kind. On palpating her belly we could perceive a peculiar pultaceous fulness of the abdomen, without resonance or with very limited resonance. This condition led us to inquire into the state of this woman’s bowels, and I will read you the particulars in this respect of her case: L. B., aged thirty-three; seven children; last child born six weeks ago in an easy labour; has never been well since; phlegmatia dolens of the left leg began a fortnight after delivery. Her symptoms indicate the probable existence of abscess in the

thigh, but locally no sign of it can be discovered in the swollen limb. During the first fortnight after confinement the bowels were opened once or twice; for four weeks previous to admission they were not opened at all. Abdomen presents little tumefaction; no tympanites, but some resonance everywhere; has a doughy, pultaceous feeling. Castor-oil and turpentine were administered four nights in succession, producing three or four large evacuations. The first three evacuations were very large and hard, the rest more nearly liquid. The abdomen is softer and more resonant on percussion, and the woman feels better.

There is a kind of retention the very opposite of this—retention in the rectum of little bits of feces. These little bits may not be scybala. Sometimes they are very black and particularly irritating, but this is not a necessary quality. The rectum, on examination, is found not to be a tube of moderate and nearly uniform dimensions, but a semi-paralyzed tube, dilated and pouched. In this kind of rectum the bearing-down pressure does not evacuate the bowels completely, and little bits are left which may give rise to intense irritation. A case of this irritation I saw a few days ago. This woman, after the evacuation of the bowels, which she effects by an aloetic purgative, has to use and always does use an enema to wash out the pouched semi-paralyzed bowel. If she does not use an enema, or if the enema does not succeed, she has irritation far worse than tickling, which she cannot forget, and which prevents her from sleeping. I have said, “if the enema does not succeed;” and in her it generally does not succeed, and then she always has to put in her finger and get hold of the very little bit or bits and pull them out, and until she does she can get no rest. This condition is important on account of the annoyance it causes.

A semi-paralyzed pouched rectum is in potential dimensions equal to the whole pelvis. It is necessarily an inactive rectum, and the feces are often accumulated and very difficult to get out. In such cases it frequently happens that no kind of purgative is efficient, and the bowels must be washed out. This washing by an enema consists in dissolving the feces and in fill-

ing the rectum with a fluid which carries away the feces in its gush through the anus when the woman stools. Sometimes the enema does not succeed; and I have known women—generally women exhausted by excessive child-bearing, who had long suffered from this condition—who had to dig out with their fingers the feces from the rectum; not a little bit left which irritated the rectum, but the mass of feces, the whole stool.

There is a kind of this pouching which is peculiar to women that occurs in women who have vaginal rectocele. The fecal mass is projected into the pouch of the vaginal rectocele. It does not make the turn downward as it ought to do in order to emerge at the anus, but passes forward, and with the rectocele pushes through the os vaginæ. If the woman has no disease but this vaginal rectocele she can be taught to assist herself. When defecation is going on she presses firmly against the orifice of the vagina, and pushes back this pouch so as to restore the proper shape to the rectum, and then the feces are evacuated naturally in other respects.

Retention of feces is sometimes caused by congenital smallness of the anus. The most common cause of retention from smallness of the anus is a too thorough operation for piles. Cases of this kind are not very rare where the anus gets too much closed, generally by the contraction of the cicatrix, so that the woman cannot effectually defecate. In some cases the evil is temporary, and arises from spasms of the sphincter.

Now I come to another kind of retention which introduces me to the word scybalum. A scybalum is a rounded or oval mass of feces the size of a hazel nut or of a hen's egg, or larger, which, long retained, has become partly decolorized, hardened, and sometimes incrustated with salts of lime, producing a rough shell resembling a hen's egg. Such scybala may be in any part of the great gut. They are not always the cause of retention of feces. The further up the gut they occur, the more likely they are to meet with feces which are fluid enough to pass easily by the side of the scybalum, and then they do little harm. A case occurred in my practice not long ago of a woman dying slowly from

malignant disease of the peritoneum. She was examined by myself and several physicians, who correctly diagnosed the disease, but incorrectly diagnosed two egg-like tumors which were for many months felt in the belly floating in the ascitic fluid which was one of the indications of her disease. These were supposed to be malignant masses. After death they were found to be scybala in the transverse colon, which were causing no irritation and apparently giving no trouble.

When a scybalum is low down, especially if it is in the rectum, the feces are likely to be retained. In this case you not only have retention of a scybalum, but also *by* a scybalum. Then the woman's only chance of having her bowels evacuated, if the scybalum persists, is in the motion being fluid and passing by the side of the scybalum. Solid feces are often undoubtedly obstructed by it, but it is only when the feces are nearly solid that it produces ulterior consequences. It may permit passage of fluid feces copiously, and yet be causing retention of the nearly solid feces.

In this retention of feces by a rectal scybalum you have the best example of the disease that we are considering. A woman having any form of retention of feces may be truly described, in many cases, as being constantly purged; and in this way the practitioner is put off his guard. A woman having the greatest and most dangerous retention of feces may be incessantly defecating, and even in very fair quantity, and even nearly solid feces, as one of my cases for this day demonstrates. You can see very strong analogy between this and the retention of urine in the bladder, which I was speaking of in my last lecture. In that disease a woman may pass urine frequently and in large quantities, and yet there is retention. So it may be in the case of retention of feces. In a case of retention of feces by a scybalum in the rectum, the accumulation of feces takes place first in the rectum, and it produces at last a tumor, which can be felt gradually forming in the left iliac region. This tumor presents generally little or even no resonance, is densely hard, and is repeatedly taken for malignant disease.

A case which I shall presently read to you

will further impress on you the danger of judging that there is no retention because a woman is defecating, even frequently. This has a very important practical bearing not only on the diagnosis and treatment generally, but it has a very important practical bearing on the question of colotomy. You are not to suppose that colotomy is necessarily excluded from consideration because the feces are passing. The retention of feces may be going on to a dangerous and even fatal amount, although feces are passing; and colotomy may be imperatively demanded.

I will illustrate this subject by several examples. For instance, pregnancy leads in the early stages frequently to ordinary constipation. But if you watch your cases of natural delivery you will frequently find in the extraordinary amount and in the character of the evacuations evidence that the advanced pregnancy has induced retention of feces, even when the bowels were truly described as moving regularly. A fibrous tumor of the uterus, an ovarian tumor, both occasionally cause very dangerous and sometimes fatal retention of feces. Adhesions sometimes do the same. Another common cause of retention of feces is stricture produced by simple inflammatory disease or by lupus or cancer.

The next case is a still more interesting one. In this case the bowel was ruptured, probably, at least partly, in consequence of the distension of it. The patient died of peritonitis after two days. There was no stricture, but the obstruction was caused by cancerous degeneration of the wall of the dilated tube of the bowel for a great length. The cause of obstruction in this case was the same as is believed to be the cause of obstruction in enteritis. A considerable part of the bowel does not act; the feces accumulate in it, and are only propelled slowly by the *vis à tergo*, or not propelled at all. In the case that I am about to read to you, the feces were propelled, but inefficiently; and although she was, as you will observe, defecating frequently, and, to the eye of an intelligent nurse, defecating copiously, the feces were retained in an extraordinary manner, and no doubt helped to produce the fatal result from peritonitis. It was correctly diagnosed as a case of malignant disease in the left pelvic and iliac region; but

it was not ascertained, and I know no means by which we could have ascertained, that the lump in the left hypogastric region consisted chiefly of feces. We suspected it, but we had no means of getting further.

"E.W., aged twenty-five, unmarried. Menses began at seventeen; regular till two months ago; since have not appeared. Four months ago began to have difficult defecation. This gradually became worse, and for weeks the pain of defecation has been agonizing. For a month walking has been difficult, almost impossible, from hypogastric pain. Micturition is accompanied by shooting pains. A fortnight before admission she felt a lump in the left hypogastric region, which has increased in size and become the seat of pain. Bowels act, not scantily, twice daily. Urine natural. Is losing flesh. The belly appears natural on inspection, but on palpation a rounded hard swelling is felt, rising from the whole length of left Poupert's ligament. It is dull on percussion, sensitive to touch, quite fixed, and reaches as high as half-way to the umbilicus. The tumor is felt to extend to the right, beyond the region of dulness, as far as the right pubic bone. The cervix uteri is on the right side of the pelvic excavation, and about an inch above the ischio-pubic ramus. It is indurated, and is in the midst of a dense sensitive hardness which fixes it. The bowels continue to act fully twice or oftener daily; feces hard and dark. On the fifteenth day she became suddenly worse, with symptoms of peritonitis, vomiting fetid green acid fluid in large quantity. She died two days after this aggravation of her condition. Post-mortem examination twelve hours after death. Peritoneal cavity contains fetid gas and a large amount of fetid, brown, semi-purulent fluid. The colon and rectum from cecum to anus is distended by a hard, solid, continuous column of feces the thickness of the forearm, greenish black in colour, and of the consistence of putty, nearly solid. No strictural obstruction to the progress of feces. The pelvic organs and the superjacent intestines to the left cohere in one mass. Malignant growth occupies the mesentery, which is half an inch thick; also the walls of the sigmoid flexure and rectum, which are thickened. The bladder and uterus are not

affected. To the left of the uterus is a soft fibrous mass the size of a small hen's egg, being the left ovary, containing a cyst filled with about a dram of green pus. The right ovary cannot be discovered. The seat of rupture of the bowel cannot be made out, the intestines having given way in several places during dissection."

You observe then that constipation is not a necessary symptom of retention of feces, and that although retention of feces implies a certain kind of constipation, there may appear to be copious evacuations while retention of various kinds is still going on.

Retention with accumulation is diagnosed by feeling scybala or by feeling the bowels distended by a mass which takes impressions like dough. Sometimes the hardness is so great and the pain produced by pressure so great that this doughy character cannot be made out. When a woman suffers in this way from great retention of feces, the belly is generally not tympanitic in any part. In one of the cases I have read to you there is sometimes intense griping, and if the retention is in the lower part of the rectum you may have tenesmus. In cases of this kind the whole body sometimes is infected by the fetid mass. The countenance is dull, the face sallow, and in some cases you can smell the breath distinctly feculent. The retention of feces, however, seems, so far as I have observed, to produce no very grave symptoms except what are mechanical.

The treatment of cases of this kind scarcely requires description. In common constipation you know the favourite purgatives are aloes and castor oil and turpentine, and such like. In cases of infarction of feces, where you can reach the feces you remove them, and you are recommended to remove them by a spoon or a lithotomist's scoop; but, so far as my experience goes, this is a very useless instrument; and although it may be disagreeable for the practitioner, I recommend him to use his fingers as infinitely more efficacious than any scoop or spoon-handle. When the mass of feces is higher up I have tried what is called massage—pressure, gentle kneading of the bowels, to produce action and to produce a change of the

shape of the feculent mass—but I have not been able to assure myself that this treatment has done decided good. Enemata are of very great service. The most valuable is the turpentine enema.

Lastly, in some cases of this kind, such as stricture of the rectum which cannot be removed, or cases of paralysis of the rectum by malignant infiltration, you must consider the advisability of resorting to colotomy. Colotomy is intended to allow the stool to pass before it reaches the disease which causes the retention, and in many cases it is perfectly successful. It allows the feces to be passed through the loin in a manner causing great inconvenience to the patient, but perfectly successful. Of course if the disease is malignant, or otherwise a fatal disease, you can only get temporary relief; but that is a matter of very great moment.

Before concluding, let me merely mention an important and very disastrous set of cases in which there is circumscribed extravasation of feces as well as retention. When an ovarian dropsy or any such cyst bursts into the bowel it sometimes happens that feces regurgitate into the cyst, generally along with fetid air, and inflammation of the cyst is set up, with feverish and probably septicæmic symptoms. Such cases generally, but not always, prove fatal. I have known life prolonged for months after the accident. A similar occurrence in every respect sometimes happens in the case of a perimetric or of a parametric abscess.—*Louisville Medical News*.

ON THE PREVENTION OF MAMMARY ABSCESS.

BY W. ALLAN JAMIESON, M.D., F.R.C.P.

There is, perhaps, nothing more disheartening to a young mother, nor any puerperal ailment, not dangerous, which weakens her more than what is known as a gathered breast. It is not my intention to enter at all into the question of the treatment of such a condition, but to direct attention to some of the causes which lead to it, and to suggest measures calculated in my experience to prevent its occurrence. And here a circumstance may be mentioned in consequence

of which the Edinburgh practitioner possesses an immense advantage over his brethren in many other places. There is no rule so universally acted on here, by the common consent both of doctor and patient, than that of every parturient female engaging some time before her confinement the services of a medical man. Such is not the case every where, however. Nothing is more frequent in country districts than for a doctor to be summoned to attend in labour an utter stranger, whose acquaintance he makes for the first time at her bedside during an interval between the pains. Much is lost by both parties by neglecting to engage a medical attendant: the patient loses opportunities of obtaining valuable hints which might have saved her much anxiety and often much suffering, the doctor chances of correcting miscalculations as to date of being laid up, and also of judging in some degree of possibilities of a slow or rapid labour. The benefits are so great and so obvious that it is mysterious why the plan is not universally followed; that it is not so, is mainly due to a want of firmness and unanimity on the part of the medical profession. The suggestion recently made, that pregnancy as well as labour should be regularly watched over, would, if carried out, do much to diminish post-partum mortality, and to facilitate the process of labour; but as many women, from a sense of delicacy, shrink from anything like supervision during what they have been led to regard as a natural course of events, the advantages to be gained from even one interview with their future attendant should not be lost sight of.

The ordinary causes of mammary abscess occurring during the period of some weeks succeeding parturition are four in number:

1. Distension of the milk ducts, or of a part or the whole of the gland, due to some obstruction to the free secretion of milk deeper than the nipple. This is often directly due to exposure to cold before the function of the organ is fully established, and the system has become habituated to the new demands made on it for the performance of lactation.

2. Imperfect development of the nipple itself, the nipple being retracted or malformed, or either wholly or partially impervious to the milk formed in the gland. Sometimes this

atrophic state is due to abscess of the mamma in early infancy, the turgescence and inflammation so often met with in the breasts of children soon after birth having run to abscess, and the subsequent condensation having choked up the nipple. Another cause is, however, long-continued moderate pressure during early womanhood, the nipple being flattened by hard, ill-fitting, or tight stays, and the breast itself compressed by dresses made too narrow across the chest. This condition of the nipple is often found in one breast alone, most frequently in the left, being then not unlikely associated with the apposition of that side to the desk in the act of writing, or the mode in which the left breast is liable to be impinged on by the arm in sewing or knitting.

3. The irritation of abraded or fissured nipples.

4. When constant attempts at suckling are made, and either the gland itself secretes feebly from its own imperfect development, or the mother's blood is deficient in milk-forming material, localised hyperæmias are apt to be induced, and eventually end in deep abscesses.

Such being the causes of abscess of the mamma, let us see what means are at our disposal to prevent them from coming into play, for the real lies much deeper than the apparent origin of the mischief. Thanks to fashion, the stays of the present day are much less injurious than those of some short time back—if they descend more deeply over the hips to accommodate their wearers to the exigencies of a Princess's costume, they at the same time do not cover the bosom so high up. Ladies declare stays to be necessary articles of dress, and they must be admitted to be the best judges; but while conceding this much, stays should be so made as to support the breast without at all pressing on the nipple. They should, in fact, either not reach to the nipple, or have a crescentic portion removed from the centre of the upper margin on each side to leave the nipple free. In Austria, where full busts are the rule, mammary abscess is, I have been informed, much less common than with us; but then there, besides a natural proclivity due to race, a certain degree of cultivation is undoubtedly resorted to, it being regarded as a positive misfortune to be deficient in that respect. During the virgin state, there-

fore, no undue restraint to the growth of the breast should be permitted, and healthy outdoor exercise, and the practice of such amusements as archery and lawn-tennis, which are incompatible with dresses tight over the chest, should be encouraged in every way. By these means the aptitude for functional activity is best maintained by the gland during its period of dormancy.

When conception has taken place, among the earliest symptoms of its occurrence are those manifested by the mammary glands, evidenced by stinging or pricking sensations, increasing fulness and weight, and all those objective alterations in the areola and nipple so often described. These subjective feelings appear to me to be Nature's summons to attention—a prayer for aid in assisting to prepare the gland for the important office to be discharged by it in furnishing food for the infant after birth. Yet, in most cases, how little note is paid to the warnings thus given! While all sorts of instruments have been devised for drawing out the nipple after parturition, it has been in great measure forgotten that all this painful and troublesome process might have been avoided by systematic, regular attention to the nipple during pregnancy. This should consist in washing the nipple once or twice *every day* with soap and warm water, during which ablution the nipple should be pressed and drawn out; and further stimulation should be excited by rubbing rather firmly, after drying, with *eau de Cologne* or equal parts of brandy and water. It is not often that we have the opportunity granted us of recommending the commencement of this procedure very early in pregnancy, but when we are engaged to attend at the approaching confinement we ought to make a point of giving these directions, which are invariably gratefully received. Though more absolutely necessary in the case of primiparæ, they are almost as valuable in multiparous females, and should also be impressed on them. Besides the mere mechanical influence exerted by friction and manipulation, a further effect is produced by the frequent direction of the thoughts to the breast and nipple. Dr. Carpenter* quotes Sir H. Holland's remark that the "strong and con-

tinued direction of the attention to a part in all probability affects either its innervation, or its circulation, or both." Mr. Heath,* in his "Lectures on Diseases of the Breast," says: "That friction, if prolonged, will produce hypertrophy not merely of the nipple but of the breast, is shown by a case which came under my notice some years back, in which the lascivious manipulations of a lover extending over many months had resulted in a veritable hypertrophy of the whole organ." We have ground, then, for believing that this treatment of the breasts during pregnancy seems to afford legitimate scope for the influence of "expectant attention;" to be really useful, however, it must be thoroughly carried out and persevered in daily till labour sets in. When these measures have been faithfully followed, we have a means of judging whether a nipple is hopelessly atrophic, and unfit to nurse with or not, when we examine the breast after delivery is completed. If no reaction has followed, and the nipple remains flat, and especially if, on pressing our fingers behind it, it conveys the sensation of being firmly bound down, the probability is great that attempts at suckling, at least with that breast, will be fruitless, and, if persevered in, will almost certainly end in abscess. Cautious, very cautious attempts may indeed be made all the more freely if some milk can be squeezed from the nipple; but we must be actively on the alert for a more than possible failure, and be ready to apply cooling lotions—belladonna, perhaps leeches, or gentle elastic pressure to limit the first symptoms of congestion of the organ. I have several times in former years seen abscess result from ill-judged persistence on the part of the nurse to induce a mother with an impervious nipple to continue attempts at suckling. It is good policy, then, to desist in time.

When the nipples have been prepared for the demands of nursing in the mode described, it is seldom that fissures or hacks of any moment arise during its performance. But when such measures have not been adopted during pregnancy, and even in spite of them—when the skin is delicate, or the infant's mouth is affected with aphthæ, cracks and abrasions of the nipple

**British Medical Journal*, 14th December, 1878.

**Lancet*, 6th May, 1871.

take place, and must be properly treated, otherwise abscess is very likely to supervene. The remedies for sore nipples are innumerable. Having tried most of them with varied success, I have for some time employed one only, which has rarely indeed failed to effect a speedy cure, provided the case has not been too long of being attended to. The *collodium flexile* of the Pharmacopœia answers every indication; it forms an efficient protection from the air; by its contraction, tends to draw the margins of the fissure together, and does not injure the infant—a most important point, not always regarded in some of the remedies recommended. The collodium flexile may be painted on several times a day, the nipple being first dried, and the sides of the crack pressed together. When the child is put to the breast, the film covering the point of the nipple may be peeled off so as to allow the milk free egress from the mamillary tubules.

When an organ in the discharge of its functions, is strained, either from inherent weakness in itself or from debility of the general system, the contractile power of its vessels is lowered, and a form of congestion is induced which may go on to the formation of abscess. This is especially apt to occur in the mammæ of weakly or ill-nourished women, and here the prophylaxis of abscess consists in the recognition of this fact. When efforts at suckling are attended with pain in the breast, and down the arm on its inner side, or the gland feels, after feeding the infant, tired and strained, and more particularly if the mother herself seems to suffer in health and appetite, and develops hysterical symptoms, the attempt to nurse should gradually be given up.

Due attention to these matters, which may perhaps be regarded in the light of minor articles of detail, does not seem to me to have been always hitherto paid, and a feeling of this has induced me to make the foregoing suggestions, which I hope may aid in lessening the frequency of mammary abscess.—*Obstetrical Journal*.

GALL-STONES.—Dr. Buckler (*Boston Med. Journal*) places the utmost confidence in chloroform to dissolve gall-stones. He gives fifteen to twenty drops or more every three or four hours, to accomplish solution within ten days. In all cases he uses the succinate of iron, half a teaspoonful after each meal.

THE FORCEPS, VERSION, AND THE EXPECTANT PLAN IN CONTRACTED Pelves.

Dr. Wm. T. Lusk read a paper on the above subject before the New York Academy of Medicine, December 18, in which he considered the management of labour in three varieties of contracted pelvis: 1. The flattened, non-rachitic pelvis; 2. The flattened rachitic pelvis; 3. The pelvis equally contracted in its principal diameters. The intent of operative interference was to save the child's life; in dead children, craniotomy held equal advantage. No case was known of a living child being delivered at full term where the conjugate diameter was less than $2\frac{3}{4}$ inches. If this diameter was $3\frac{1}{2}$ inches or more, no interference was demanded. Discussion should be limited to pelves between these diameters. With such a pelvis, a cervix fully dilated, a favourable presentation and no complications, the expectant plan was the best. Version was indicated only when the child was nearly in the normal condition, the contraction limited to the brim and sufficient space in the transverse diameter. Extreme traction force in version might fracture clavicle, humerus or skull, and produce other serious injuries to the child. He gave records showing for version a saving of 31 living infants out of 43, and all the mothers; for forceps, high operation, head above brim, 40 per cent. of children and 60 per cent. of mothers; for expectant plan, 354 out of 407 children, and all the mothers but 12. He described the Tarnier forceps, which he had modified somewhat, and claimed with them to be able to bring the head of the child from the brim to the floor of the pelvis in much less time and with less force than by any other method.

[The Tarnier forceps is a very powerful instrument, having extra traction handles curving posteriorly, so as to bring the traction force more in the line of the superior strait.]

Dr. Isaac L. Taylor believed that, in the superior strait, the Tarnier forceps were not so good as the straight forceps. Within the limits mentioned by Dr. Lusk— $2\frac{3}{4}$ to $3\frac{1}{2}$ inches conjugate diameter—there was a vast difference of opinion among prominent obstetricians as to the best method of procedure in such cases. Dr. Lusk, in his demonstration, has applied the for-

ceps over the occiput and face of the child. There was a difference of opinion also as to whether the application of the forceps in this manner was the best, some favouring it, and others, as Hodge, Wilson, and others, applying the blades directly to the sides of the head. Dr. Goodell recommended to apply the instrument with one blade against the pubis and the other against the sacrum, but Dr. T. did not believe that this had ever been done. Dr. Taylor rejected *in toto* the application of the forceps over the occiput and face, and there was no advantage in doing so in a simple flat pelvis. More space could be obtained by bringing the coronal suture in contact with the promontory of the sacrum and applying the forceps in the oblique diameter of the pelvis. The head could be fixed in that position by the straight forceps. Moderate compression was made, it was true, but it was not made antero-posteriorly—to which he was opposed in all cases—but upon the parieto-frontal portion. The important point was to know how to handle the base of the skull. If this came in contact with the sacrum and the straight forceps were applied, the operator being on the floor making traction, the instrument acted in the same manner as the Tarnier, downwards and backwards, and with to-and-fro movement at the will of the operator. If the head did not yield, version could be employed, to be decided on by the size of the child, of the fontanelles, etc. The chief point, as he regarded it, was simply whether with a head presentation and dilated os in a contracted pelvis, it was proper to attempt to deliver with forceps. He did not object to the attempt, but after making two or three reasonable efforts, and failing, version should be resorted to, aided by external pressure, which was here of the greatest importance.

Dr. T. Gaillard Thomas felt compelled to say that statistics had but little weight with him. He often thought of Sydney Smith's remark, that "there is only one thing more unreliable than figures, and that is facts." In a case of labour in contracted pelvis, not below $2\frac{3}{4}$ inches antero-posteriorly, expectancy, at the beginning, should invariably be practised, even though convinced that the forceps must end it. The forces of nature should be allowed to mould the

head and change its shape, and then the case might be terminated favourably; whereas, too early use of forceps might produce terrible results. So long as the foetal heart beat regularly, the maternal soft parts were cool and moist and the pulse between pains not accelerated, we could safely trust to expectancy. When the pulse became rapid, the temperature increased and the dangers of continuous pressure imminent, expectancy became a crime. In a case in good condition the question arose, "Shall the woman be delivered by the forceps or by version?" There was no other operation at our disposal. His convictions were: If the uterus did not clasp the child's body so firmly as to render turning extremely difficult, or the waters had not been so long evacuated that the result of turning would probably be dangerous from forcing the hand up to the fundus, with the head above the superior strait or entered into it to some degree, version, as a rule, admitting of exceptions, was the suitable operation.

If the child had fairly entered the cavity of the pelvis so as to be fixed—rendering version unusually difficult—then the forceps should be selected. But having elected either operation, the choice was not final. Having failed with the forceps after using a justifiable degree of force, version might still be employed; or, version failing, the forceps might be used.

He thought that Tarnier's forceps was a great improvement on older instruments, but did not believe they would come into general use.

Dr. Fordyce Barker considered the vital condition of the woman as an element to assist in deciding between forceps and version; version producing more shock. There were certain rules relating to these cases which he regarded as established:

1. In that form of contraction of the superior strait called the oblique oval of Naegele's, the forceps should not be used, but always version.

2. In that class of cases in which the contraction is at the inferior strait, with a straight sacrum, narrowness of the sub-pubic arch, etc., we should never resort to forceps, but always select version, if we can make the election by a sufficiently early examination.

3. In face presentations we should never use

forceps when the head is above the superior strait and not engaged.

He would not say that the forceps should never be applied when the head was not engaged at the superior strait, for he had safely delivered several women, where it was necessary to save the mother's life, when the head was lying loose, not engaged at all. But if the face presented, he would not use forceps. He had, in three cases when the face had become engaged in the strait, delivered by the forceps by first flexing the head and converting it into a vertex presentation and partially rotating it; then taking off the blades, he had reapplied them as if it was a vertex.—*New York Medical Record*.

OBSTETRICAL SOCIETY OF LONDON.

A paper on "The Pain in Pelvic Cancer, and its Relief by Morphia," by Dr. Champneys, was read. The former and larger part of the paper consisted of a clinical study of fifty cases in the wards of St. Bartholomew's Hospital, and was illustrated by fourteen tables, dealing with the ages of the patients, the first symptoms noticed, the seat of pain, its locality, the date of its commencement, its quality, amount of intensity, and the relation of pain to hæmorrhage. The analysis showed some points of departure from what have been considered established facts; for instance, as many of the patients were from thirty to forty years of age as were from forty to fifty; and again, pain rather than hæmorrhage was the first symptom noticed. On these the author remarks that his cases were only fifty, and can therefore not overthrow Dr. West's larger number of 166, but suggests that as this part of the question cannot be founded on objective facts, but must depend upon the patient's memory, which memory might be supposed to retain hæmorrhage rather than pain, it may be supposed that pain, as a first symptom, may occur oftener than is usually imagined. It was shown that cancer may be painless at almost every stage, but it was remarked that of the author's cases none were painless in which hæmorrhage was absent. The seat of pain was carefully ascertained by making the pa-

tient lay her hand or finger on the spot. The localities were most various, the region of prevalence of uterine pains being seen, however, to be mainly bounded by the line of the sacrum above and of the knee below. It is remarkable that the pains were six times as common on the left as on the right side, which cannot depend on the locality of the disease, but must depend on the difference with regard to sensation between the two halves of the body, a difference seen also in the common left-sided pain of females and the preponderance of left-sided hemi-anæsthesia; "Man is not an absolutely bilaterally symmetrical animal." Aching of the whole front of the thighs and pain transfixing the body are believed by the author to be at least uncommon, except in cancer. Back-ache amounted to 24 per cent., pain in lower abdomen to 14 per cent., pain in the groins to 18 per cent., of all pains. It was shown that no relation existed between intensity of pain and duration of disease. Thirty cases showed the pain to be worse post-meridian than ante-meridian. The author suggested a connection between pain worse at night and pain relieved by bleeding as possibly depending on the increase or diminution of vascular tension in the diseased tissues, which is illustrated by the nocturnal tightening of bandages, and he remarked that in all his painless cases there was bleeding. Three remarkable cases are given at length of nervous affection, in one of which there was paroxysmal nocturnal motor and vaso-motor disturbance of one, then of both legs, depending probably on irritation reflected at the spinal cord. Of the methods of administering morphia the hypodermic injection was shown to be by far the most, and the suppository the least, effectual.

Dr. Matthews Duncan thought the paper was one for reference rather than criticism. The collection of facts was great and valuable, and never before made. The connection of physical signs with lesions was easier than symptoms with them.

Dr. Hewitt said the paper showed great research. He had paid particular attention to the pain of cancer. Its peculiarity was its spontaneity. He had also observed increased frequency of pulse in cancer.

The President was struck with the frequency with which pain was present. He asked if measures for removal had had any effect in alleviating the suffering.

Dr. Godson had found hæmorrhage frequently the first symptom.—*Lancet*.

THE COMPRESSING POWER OF THE LONG AND SHORT FORCEPS.

"The figures in the last column give the pressure which a weight, or any other compressing force, equal to 50 lbs. avoirdupois, acting on the middle of the handle (or, in the case of Hodge's, two inches from its distal extremity,) would produce in the centre of the arc of the head curve. . . . The force was determined indirectly by means of sliding weights hung on a long balance-beam, graduated into inches and tenths, side by side with the blade under observation."

Masterman's Observations.

LONG FORCEPS.

NAME	Length of Handle, in inches.	Length of (Shank and) Blade.	Total Length.	Ratio of Handle (=1) to Blade.	Resultant of 50 lbs. pressure, in lbs.
Ashwell's.....	3½	10¾	14	3.3	10.5
Barnes'.....	4½	10	14½	2.2	15.4
Blundell's.....	4½	9½	14	2.1	19.0
Hodge's.....	8	9	17	1.1	61.0
Lever's.....	4½	10½	14½	2.4	13.4
Simpson's.....	4¾	8¾	13½	1.8	20.2

SHORT FORCEPS.

Clarke's.....	4½	7	11½	1.6	31.0
Collins'.....	4	6	10	1.5	34.0
Denman's.....	4½	6½	10¾	1.5	33.5
Inglis'.....	2½	8	10½	4.2	10.0
Simpson's.....	2	7½	9½	3.7	9.6
Smellie's.....	4½	6	10½	1.4	36.0

LEVER OF THE THIRD ORDER.

(Intermediate Length.)

Assalini's.....	5½	7	12½	1.02	25.0
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CANADIANS IN ENGLAND.—Bertram Spencer and W. H. Burton, M.B., Toronto, have passed the primary examination of the Royal College of Surgeons, England.

Translations.

INJECTIONS OF LINSEED OIL IN CHRONIC CYSTITIS.

A man twenty-nine years of age entered the Hospital, suffering from cystitis of six months' duration. Night and day he was obliged to urinate hourly. The urine contained a quantity of mucus and pus. The ordinary remedies were tried without benefit. Hovre proposed to distend the bladder, and keep in that condition as long as possible. The agent employed with this view was linseed oil, of which 8 ounces were injected at each sitting once a day. The cystitis was relieved after a week's treatment. The act of micturition was repeated only 5 or 6 times in 24 hours, and was unattended by pain.—Another individual of 49 years suffered from cystitis of three months' duration. The urine contained mucus and pus; the patient was obliged to urinate from 10 to 20 times a day. The same treatment was adopted as in the preceding case. After eight days the pain disappeared, and the patient could hold his water for 2 hours.—*Gazz. Med. Ital., from Il Movimento*.

CEREBRAL THERMOMETRY.

Prof. Maragliano draws the following conclusions from his researches:—

1. The thermometer applied to the cranial integument faithfully records the internal thermal oscillations.
2. The cerebral temperature taken in this way is shown to be in physiological conditions higher on the left side than on the right, especially if the thermometer be placed in the frontal region.
3. The temperature varies according to age and sex.
4. It may present at any moment throughout the day elevations or depressions within certain limits.
5. The cerebral temperature has an application in pathology both relative to the relations which exist between the two sides, and between different points on the same side.
6. In order to have any absolute value, there must be recorded an elevation or depression differing at least one degree from the physiological mean.

7. In cerebral embolism there is a fall over the lobe irrigated by the occluded vessel, whence an important diagnostic criterion may be drawn.

8. During chloral sleep there is a constant diminution in the cerebral temperature.—*Riv. Sper. di Freniatria ecc.*

ON THE TREATMENT OF INTERSTITIAL HEPATITIS.

At the Amsterdam Congress (1879), Prof. Semmola communicated the following observations in propositional form: 1. Clinically there is observed an interstitial hepatitis with hypertrophy of the liver, which may be confounded with interstitial hepatitis in the sclerosed stage, having similar symptoms when the physical examination of the liver is obscured by considerable ascites. 2. The causal conditions connected with this hypertrophy found in the cases observed by the author were malaria, alcoholism, the abuse of irritant foods—never syphilis. 3. The most successful treatment is an exclusive and vigorous long-continued milk diet, and the prolonged use of ever-increasing doses of Iodide of Potash (from 1 to 4 grammes in the 24 hours), dissolved in a litre of water, and drunk at intervals. 4. A reconstituent alimentation and tonic medication are attended with no improvement, but augment the patient's suffering, aggravate the disease of the liver, and, in cases otherwise curable, render the affection mortal. 5. Under the treatment indicated, the distended subcutaneous veins slowly disappear simultaneously with the ascites, the digestion improves, as likewise nutrition, and the patient gets well: the liver, however, may still remain more or less large and hypertrophied even after two years.—*Gazz. Med. Ital. and Lo Sperimentale.*

CEREBRAL THERMOMETRY (MARAGLIANO E SAPPILLI).

1. The mean temperature of a healthy man's head—taking our observations—is $36^{\circ}.13$ for the left side, and $36^{\circ}.08$ for the right, and $36^{\circ}.10$ for the whole head. As to the various regions, the means of the frontal lobe are represented by $36^{\circ}.20$ for the

left side and $36^{\circ}.15$ for the right; the parietal lobe by $36^{\circ}.18$ for the left side and $36^{\circ}.15$ for the right; the occipital lobe by $36^{\circ}.13$ for the left side and $36^{\circ}.08$ for the right.

2. In the insane, with the exception of simple lipomania and dementia, the mean temperature of the head is superior to the normal.

3. The highest figure is met with in *mania cum furore* ($36^{\circ}.89$); then follow in succession *lipomania agitata* ($36^{\circ}.81$); progressive paralysis ($36^{\circ}.63$); *dementia agitata* ($36^{\circ}.45$); imbecility and idiocy ($36^{\circ}.34$); *mania sine furore* ($36^{\circ}.30$); *lipomania simplex* ($36^{\circ}.17$); *dementia simplex* ($36^{\circ}.03$).

4. In all forms of mental disease, the occipital lobes, as in the healthy state, present a lower temperature than the others. The temperature of the frontal lobes, which equals that of the parietal in *dementia agitata*, imbecility and idiocy, exceeds it in mania, simple lipomania, and simple dementia; but in progressive paralysis and lipomania agitata the temperature of the parietal lobes is superior to that of the frontal.

5. In all the chief groups of mental disease the mean of the two sides of the head is almost equal, with the exception of the congenital forms, in which the various regions of the right side present a figure superior to that of the left.

6. The results of cerebral thermometry, compared with our present knowledge of the pathological anatomy of insanity are confirmed by the fact that in general paralysis, in mania, and in the various periods of exaltation which are so frequently manifested, as well as in the forms of depression and mental debility, a hyperæmic state of the brain exists.

7. The circumambient temperature exerts a notable influence upon the results of cerebral thermometry.

8. The general temperature of the body in the insane, taken in the axilla or the rectum, is greatest in lipomania agitata and in mania furiosa, and diminishes in decreasing order in progressive paralysis, dementia agitata, mania sine furore, imbecility and idiocy, tranquil dementia and simple lipomania.—*Rivista Spirituale di Freniatria E di Medicina Legale.*

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical
 Science, Criticism, and News.

TORONTO, APRIL, 1880.

MIDLAND AND YORK.—Dr. James Ross, of Toronto, is a candidate for re-election to the Ontario Medical Council for Midland and York. He has proved one of the most efficient members both in the Council and on the Finance and Executive Committees. We hope to see him elected without opposition. The poll closes June 14th.

JAMES BOVELL, M.D.

This well-known Canadian physician died on the 16th of January, in the island of Nevis, West Indies, where he had been residing for several years. He was born in 1817, in Barbadoes, in which island his family had long been resident. When in his 17th year, he went to England, and entered his name as a student at Cambridge, but shortly after was taken ill, and on his recovery began the study of medicine at Guy's Hospital, where he enjoyed the friendship of the Coopers, of Bright, and of Addison. Through life he remained a Guy's man, and was never weary in talking of his old teachers, among whom Bright and Addison appear to have been his ideals. After taking the license of the College of Physicians, he proceeded to Edinburgh, and studied Morbid Anatomy for several months under Dr. Craigie. From thence he went to Glasgow, and worked at the Pathology of Fever with Dr. Buchanan, taking his degree at the University in 1838. Attracted by the fame of Stokes and Graves, and having friends and relatives in Dublin, he proceeded to that city, and studied under those great masters for several years. While there he formed a lasting friendship with the late Dr. R. L. Macdonnell, of Montreal. During the latter part of his stay in Ireland he had typhus fever, and on recovering determined to return to Barbadoes, though strongly dissuaded from this step by his Dublin friends. There can be

no doubt that in this he made a great mistake. Intimate with both Stokes and Graves, possessed of ample means, and with intense enthusiasm for his profession, the way to success was clear. He entered into practice at Bridgetown, Barbadoes, and rapidly gained the public confidence. About 1848, and subsequently, a considerable number of West Indians came to Canada, and among them was the subject of the present notice. He settled in this city, and at once took a prominent position in the profession. In 1850 he took part with Drs. Hodder, Bethune, and Melville in the establishment of the Medical Faculty of Trinity College, in which he held the positions of Professor of the Institutes of Medicine and Dean of the Faculty, during its short but successful career of four years. In addition to the posts already mentioned, he was Physician to the General and Burnside Lying-in Hospitals, and gave clinical instruction in both institutions. He also held the chair of Natural Theology in the University of Trinity College. In conjunction with the above-named gentlemen and Drs. King and O'Brien, he assisted in the publication of the "Upper Canada Medical Journal," 1851, the first issued in this Province. After the disruption of the Medical Faculty of Trinity College, he joined the Toronto School of Medicine, and continued to lecture on Physiology and Pathology until 1870, when he returned to the West Indies, to the island of Nevis, where he had an estate. Shortly after he was ordained a clergyman of the Church of England, and took charge of a parish in the island, where, with the exception of two visits to Toronto, he remained until his death. His contributions to medical and scientific literature were numerous, and are to be found in the "British American Medical Journal," the "Upper Canada Medical Journal," and the "Canadian Journal." Among the most important are the series of papers on the "Barbadoes Leg," in the "British American Journal" for 1849; "On the Transfusion of Milk in Cholera," "Canadian Journal," 1854; and papers on the Anatomy of the Bear and on the Medicinal Leech, in the same journal. He published also an extensive pamphlet urging the Government to take up the question of Inebriate Asylums. His published works are chiefly of a theological and devotional

character: "Outlines of Natural Theology" and "Passing Thoughts on Man's Relation to God," both of which were very favourably received; also "The Advent," and a Manual for the Holy Communion.

A consideration of the life and character of Dr. Bovell presents certain difficulties, for in many respects he was an exceptional man, and cannot be judged of by ordinary standards. Prominent among his characteristics was a moral nature of unusual delicacy and fineness; vice naturally avoided him, virtue was drawn towards him, and the good side of a man instinctively showed itself in his presence. This, with a frank, kindly disposition, made him exceedingly loveable to his friends and deeply respected in the community. Mentally he had been richly endowed: a strong memory—except in matters of professional business—keen perceptive faculties, a quick wit, and considerable fluency of expression. But with all these there was something lacking, and it is this which makes the retrospect of his life in some respects a sad one. There was a want of that dogged persistency of purpose without which a great work can scarcely be accomplished. The contrast between actualities and possibilities in his case was painful; and the work done—though excellent—seemed almost feeble in comparison with what might have been achieved. Much of this arose from attempting too many things. It may be well for a physician to have pursuits outside his own profession, but it is dangerous to let them become too absorbing. To Dr. Bovell the fields of Science, Philosophy, and Theology were especially attractive, and were cultivated equally with the field of Medicine, in which it was his chief duty to work. With equal readiness he would discuss the Origin of Species, the theories of Kant, Hamilton, and Comte, or the doctrine of the Real Presence; and what he said was well worthy of attention, for his powers of criticism and analysis were good. But his versatility was an element of weakness, as he himself knew. His reputation depended chiefly upon his professional skill as a physician, and this was proportionate to his talents and advantages. The training which he had received under Bright, Addison, Stokes, and Graves made him at once a valuable addi-

tion to the medical men of any community, and in Barbadoes and Toronto he quickly commanded a consultation practice. But here a circumstance must be mentioned which was adverse to material success. As a young man he was possessed of fair means, and never felt the "frosty but kindly" influence of *res angusta domi*, which, repressive and injurious in certain cases, has on the whole a beneficial effect, particularly in the formation of business habits. These and the scientific habit of mind are rarely found conjoined, and in many respects Dr. Bovell was a typical example of a class. The exacting details of practice were irksome to him, and too often appointments were neglected and patients forgotten in the absorbing pursuit of a microscopic research, or the seductive pages of Hamilton or Spencer. There are numerous stories told of his absent-mindedness—some of them true, many more apocryphal. As a physician his power of diagnosis was especially good, more particularly in diseases of the heart and lungs; and such was the confidence the profession and public placed in him, that had he been alive to his own interests he might have made a large fortune. As a professor, his personal character made him a great favourite with the students; but he was a brilliant lecturer rather than a good teacher; his own intuitive grasp of ideas was so rapid and clear that he failed to make allowance for the slower perceptions of less gifted minds.

To his professional brethren he pursued a course of unvarying kindness, living on terms of good-fellowship with every medical man in the city.

After taking orders he devoted himself almost exclusively to ministerial work, though during his visits to Toronto his old patients sought him out in numbers.

For many years he suffered from an ulceration of the back, which had latterly grown much worse. On December 9th he had a paralytic stroke, and ten days later a second, which he survived only a few weeks.

The influence for good which a life like that of Dr. Bovell exercises in the profession and in society at large is in many ways incalculable. Enthusiasm, high moral principle, and devotion at a shrine other than that of material prosperity, are not the qualities that build a princely fortune, but they tell not only on a man's own generation, but upon the minds and hearts of those who are growing up around him, so that his own high purpose and unselfish life find living echoes when he himself has long passed away.

Book Notices.

Researches on Hearing through the Medium of the Teeth and Cranial Bones. By CHARLES HERMON THOMAS, M.D.

Report of the Eastside Infirmary for Fistula and other Diseases of the Rectum. Dispensary Building, 304 East Broadway, New York.

External Rectotomy as a substitute for Lumbar Colotomy in the treatment of Stricture of the Rectum. By CHARLES B. KELSEY, M.D., New York.

A Plea for Cold Climates in the Treatment of Pulmonary Consumption. Minnesota as a health resort. By TALBOT JONES, M.D., of St. Paul, Minn.

The Student's Guide to Diseases of the Eye. By EDWARD NETTLESHIP, F.R.C.S, Ophthalmic Surgeon to St. Thomas's Hospital. Philadelphia: Henry C. Lea, 1880; Toronto: Hart & Rawlinson.

This is a small work of about 350 pages, royal 12mo, and is a most admirable compend of the whole subject of Ophthalmology. It will prove a most valuable manual for advanced students, and also a very convenient and reliable handy-book for the general practitioner, its pages being replete with practical information, conveyed in a concise yet perspicuous manner. The worth of the book is enhanced by an instructive chapter on "Diseases of the Eye in relation to General Diseases." The author is to be congratulated on his valuable contribution to the literature of his specialty.

Pharmacographia: A History of Drugs. By FLÜCKIGER and HANBURY. 2nd Edition, 1879. London and New York: Macmillan & Co.

This is a pure history of vegetable drugs, without any attempt to give their physiological or therapeutical effects, or their pharmaceutical preparations, and is doubtless very interesting to the dealer, or to those medical men who, having secured a competence in early life, will be glad to find anything by which they can make time pass more pleasantly. The authors

have devoted a great deal of time and care to its compilation, and to those who have leisure and inclination to devote to the study of the natural history of drugs it will prove a very acceptable work; but life is too short and the science of medicine too long for the practising physician or medical student to devote much of their time to such works. The book is well printed, in good clear type, on just the kind of paper we like, free from glaze; and we think it would be well if Canadian and American publishers would follow the example of Macmillan & Co., and give us our books printed on paper less trying to the sight. To those for whom it is intended we commend it as thoroughly reliable.

Brain Work and Overwork. By Dr. H. C. WOOD. Philadelphia: Presley Blakiston. 1880.

This is No. 10 of the American Health Primers, edited by Dr. W. W. Keen. It treats in a clear and forcible style of a subject that is attracting considerable attention at the present time. Medical men have long recognized the fact that the tendency of the age, especially in America, is to live too fast, and that to the improvident burning of the candle of life at both ends must be credited many of the premature break-downs that we so frequently see among those who tax their brains too severely in the race for success in either business or professional careers. Dr. Wood divides his work into seven chapters. Chapter I. is Introductory; Chapter II. deals with the General Causes of Nervous Trouble—such as Exposure, Sexual Excesses, Alcohol, Tea and Coffee, Gluttony; Chapter III. is on Work: its Effects, Proper Age for Labour, Difference in the Labour Power of the Sexes, Women's Work, &c. In discussing Women's Work the author expresses his sympathy with every effort to extend the opportunity of women to make a comfortable livelihood, but suggests that instead of choosing the most wearing of callings, such as the legal and medical professions, they should rather turn their attention to such work as pharmacy, where their powers of pleasing, deftness, and accuracy of manipulation, &c., and abilities to be content with a sedentary life, are the qualities required by the drug

clerk. The remaining chapters deal with "Rest in Labour," "Rest in Recreation," and "Rest in Sleep." The book is admirably suited for the general public, and it is to be hoped will be widely circulated and thoughtfully and profitably read.

Reviews of *Reynold's System of Medicine*, Vol. II.; *Day on Headaches*; *Kane on the Hypodermic Injection of Morphia*; *Fenwick's Clinical Medicine*; *Bristowe's Practice of Medicine*; *Atkinson's Therapeutics of Gynecology and Obstetrics*; and *The Montreal General Hospital Reports*, are unavoidably held over.

JOURNALISTIC.—We have received a copy of the *Rapid City Enterprise*, a weekly newspaper published in the North-West Territory, 150 miles west of Winnipeg. Messrs. Pim and Carruthers are the proprietors. The paper is well conducted and admirably suited to the class of readers in whose interests it is especially published—the farmer in the great North-West. *Rapid City* appears to have been aptly named.

HORLICK'S FOOD.—We recently used "Horlick's Food" in several cases of infant diarrhoea and mal-nutrition of children, with results that prove it to be a perfect infants' food, and made in full accordance with the laws governing assimilation in early life. There are, perhaps, few conditions that call for more careful judgment than the substitution of some article of diet in cases of deficient breast milk. Preparations are still flooding the market, claiming to be properly adapted to the infant stomach, which nevertheless contain more or less starch—a detrimental ingredient usually, and one which seldom fails to disorder the digestion, and cause wasting and diarrhoea. Horlick's food is entirely free from starch, the flour having been changed into dextrine and grape sugar. This food has long borne a high name, and we take pleasure in adding our testimony to that of so many physicians throughout the country as to its excellent digestive and assimilative properties. It is recommended in dyspepsia of adults, and in all diseases where digestion has been impaired.—*San Francisco Western Lancet*.

Meetings of Medical Societies.

NEWCASTLE AND TRENT MEDICAL ASSOCIATION.

The fourth regular meeting of the Newcastle and Trent Medical Association was held at Port Hope, on Feb. 4th. Present: Drs. Herriman, Hamilton, Waters, Might, Burritt, Riddell, Halliday, Clemesha, Powers, Corbett, Griggs. The minutes of the previous meeting were read and confirmed, and the Treasurer's report received and adopted. Receipts for the year, \$23.00; expenses, \$17.95; balance, \$5.05. The following officers were elected for the ensuing year:—President, Dr. Herriman (*ex-officio*); Secretary-Treasurer, Dr. Halliday; Vice-President for Cobourg, Dr. Waters; Local Secretary for Cobourg, Dr. Burnet; Vice-President for the Eastern District, Dr. Wiloughby; Local Secretary, Dr. Douglas; Vice-President for Napanee, Dr. Rutan; Local Secretary for Peterboro, Dr. Bell; Local Secretary for Port Hope, Dr. Hamilton.

Dr. Burritt gave notice of motion that there should be only one Vice-President. If carried, to take effect next year.

Dr. Hamilton introduced two cases to the Society—one an unusual case of hysteria, the other a case of stricture of the œsophagus. A history of the cases were given, and they were examined by the members present.

The next business before the meeting was the report of the Tariff Committee.

Dr. Burritt, chairman of the committee, presented a draft of a tariff, the items of which were taken up and discussed *seriatim*. Many additions and alterations were made, the subject having the full interest of the members present.

Dr. Hamilton suggested that a copy of this tariff, as now drawn up, be sent to each medical practitioner in this district, with the request that each practitioner receiving said copy of tariff be either present at the next regular meeting to further discuss said tariff, or give his assent or dissent in writing; and that after discussion at the next regular meeting the tariff, as then amended, be adopted, and be sent to the Medical Council for confirmation.

Moved by Dr. Halliday, seconded by Dr. Riddell,—That the next meeting of this Association be held at Brighton on the first Wednesday in June. Carried.

On motion of Dr. Might, seconded by Dr. Powers, the meeting was adjourned at 6 p.m.

TORONTO MEDICAL SOCIETY.

The Society met at 8 p. m., Feb. 12th, Dr. Riddell, Vice President, in the chair.

Dr. Graham presented two patients.

I. Progressive Muscular Atrophy.

R. D., æt 48, a fisherman 20 years, and much exposed to wet and cold; a moderate drinker and a heavy smoker. About May 15th, 1879, noticed the thumb of right hand beginning to get weak; while painting could not hold the paint-brush well, but could row during the summer. About Oct. 14th began to lose power in index finger of same hand, and soon after in remaining fingers. About Jan. 1st, 1880, noticed right arm getting weaker, and the commencement of twitchings in the affected muscles. About Jan. 15th noticed thumb of the left hand becoming affected. Has no lack of sensation in any part of body, and no pain. He gets tired more easily than he used to. Is fairly well nourished, but muscles of right arm are perceptibly wasted. There is a great deal of twitching of the muscular fibres present. This can be excited by striking the muscles, or by the application of electricity. No such vibrations can be excited in the muscles which should form the ball of the right thumb. His eyes become tired more easily than they used to. Pupils small, and do not respond very readily to light.

II. Ménière's Disease; or, Aural Vertigo (supposed to be).

F. B., æt 42, born in Germany, a carpenter. On Jan. 14th, 1880, fell 24ft. from a scaffold, landing on his left side and head. His shoulder was bruised, and he received a scalp wound over prominence of left parietal bone. There was a slight sero-sanguinolent discharge from the left ear, which increased for a few days, but ceased Feb. 5th. After the accident, was taken to General Hospital and discharged Jan. 23rd. On Jan. 25th suddenly had a fainting feeling, with dizziness, and would have fallen forward if he had not seized some neighbouring object for support. Since then this feeling manifests itself several times a day, and lasts from a few seconds to one minute. If he looks at some object above his head, or lies down on his left side, he is seized with this fainting feeling; but if he lies

on his right side it does not come on. There is never any loss of consciousness, no implication of speech, no convulsive movements, no impairment of vision, no nausea; feels as well after the attack as he did before. Attacks come on at irregular intervals, and are equal in their intensity. Has a noise in his left ear occasionally, which sounds like that produced by the waves of a rough sea: this comes generally after an attack. The hearing is very much impaired on left side. Was re-admitted to hospital Jan. 25th. Since then taking Potas. Bromid, gr. xii. to the dose. Attacks are becoming less frequent. Dr. Reeve on examining patient found hearing not absolutely lost on left side. He suggested that there might be an affection of the middle ear, producing pressure on the contents of the labyrinth through the fenestræ.

Dr. Covernton reported a case of Facial Erysipelas in a male adult. It appeared to be a very slight attack, and patient was apparently quite well in all other respects, but had a persistent temperature of 102° for several days.

Dr. Cameron exhibited a specimen of contracted large intestine, taken from a man who had died from phthisis.

Also cerebellum and liver, showing tumours supposed to be gummata, taken from B. E., æt 37, male, who died in hospital. He had been ill about 2½ years, the first symptom being a very persistent pain in the head, which to a certain extent continued throughout his illness. He also had pleurisy and pneumonia. No distinct history of syphilis had ever been made out, but he for some time received specific treatment.

Dr. Reeve exhibited a dentaphone.

At a meeting Feb. 26th, Dr. Palmer was elected a member of the society.

Dr. Gahin read an interesting paper on Pyæmia, in which he discussed the different theories as to its pathology.

OBITUARIES.

The English journals announce the death of Sir Dominic Corrigan, Mr. Hancock, and Dr. Budd. Dr. J. Lockhart Clarke died on January 25th.

THE RIDEAU AND BATHURST MEDICAL ASSOCIATION SEMI-ANNUAL MEETING.

The semi-annual meeting of the Rideau and Bathurst Medical Society was held in the City Council Chamber, Ottawa. There were present—Drs. Grant, Whiteford, Carmichael, McDougall, Malloch, Higgins, Lynn, Sproule, M.P., Munroe, of Lanark; Kellogg, of Perth; Baird, of Pakenham; Cranston, of Arnprior; Bentley, Sweetland, Horsey, Hill, Wright, Rogers, McRae, Powell, and Shaw.

The chair was taken at 3 o'clock by Dr. Grant. The minutes of the last meeting were read and approved.

THE SECRETARY'S RESIGNATION.

Dr. Lynn placed his resignation before the meeting, on account of his intended removal from the district.

Dr. Whiteford was appointed secretary.

NOTICE OF MOTION.

Dr. Malloch gave notice of his intention to move that the semi-annual meetings of the Bathurst and Rideau Medical Association be held at Ottawa, in accordance with the by-laws, on the first Thursday in March, instead of the first Monday.

RESOLUTION OF REGRET.

Dr. Hill moved, seconded by Dr. Sweetland, that the resignation of Dr. Lynn, the Secretary, be received, and that this Association desires to record their sense of obligation to Dr. Lynn for his attention to the duties of that office; also, that this Association much regrets that impaired health necessitates the removal of Dr. Lynn from Ottawa, where he has earned and won the esteem and confidence of his medical *confreres*.

The motion was unanimously carried.

The treasurer, Dr. Hill, presented his annual report, showing a balance on hand of \$10.35.

THE PRESIDENT'S ADDRESS.

The president, Dr. Grant, apologized for diverging from his usual custom of writing an annual address, which, from press of time, he was unable to do. However, before taking his seat, he would make a few observations on a subject which he felt satisfied was of great interest to the profession, inasmuch as it was intimately connected with the welfare of the community at large, viz.: "The Brain, in an educational point of view." This subject is to-day attracting the attention of many of the leading scientists of Great Britain and Canada, and the United States as well. Among the

foremost of these are Dr. Richardson, of London, Professor Huxley, and Dr. Clark, superintendent of the asylum at Toronto. There are those who still maintain superiority of physical over mental culture; however, the tendency to a purely physical training is rather on the decline, and the degree of admonition once bestowed on men of great strength is not valued so highly as it was formerly. Mental and physical culture must go hand in hand. The one was necessary for the thorough and practical development of the other. The greatest evidences of physical culture and intellectual development, never deranging the balance or impairing the symmetry of the whole, was probably more keenly appreciated and exhibited in ancient Greece and Rome than any other portion of the known world. Now-a-days the educational idea has undergone a considerable change, and the strain after knowledge, in the shape of a skeleton of distinction, it is to be hoped, will become a matter of the past. The ventilation now being given to this subject is exposing very justly the intemperance in study, the term, the expressive term of Dr. Tuke, of Edinburgh, in his able paper to the British Medical Association. Education in childhood is a subject of vital importance. Children's brains are often taxed long before they have either learned how to walk or how to play. Play is looked upon rather as a reward than as a source of encouragement to study. Thus we have conflicting interests between physical growth and mental food. The building of a brain is to-day a great social problem, and those in charge of educational instruction will require to observe closely its solution. The brain, itself the seat of the intellect, is generally supposed to control the whole physical organization. To be healthy in its action and vigorous it must have distributed to it strong and nourishing blood. Each thought, each intellectual effort, is attended by the evolution of mere power, and that mere power is fed and sustained by a circulating medium, blood, which passes through it. To maintain the balance, a healthy system, with all the organs performing their functions rapidly, is absolutely necessary. The brain performs no small part in the ordinary digestion of food, and that food again to give brain power requires not to be interfered with in the overstraining of mere energy. How many girls and boys of the present day could undergo such a tax as was placed in the system of John Stewart Mill, from three to sixteen? It is unphysiological, and attended with great danger, to promote hot-house mental culture, by excessive application to books before the very tissue of the brain is strong enough to carry along, successfully, impressions made upon it. Who

would think of coaxing a baby to stand before the bones of its legs were strong enough to support its body, or who would expect a young colt to draw the load of an ordinary team of dray horses? Would such a child likely make a great man, or would such a horse likely be developed into a powerful animal? This excessive early culture is certainly fraught with very great danger. If we examine into the history of either the past or the present, what is the evidence to be adduced? The men today who wield the destiny of this Dominion are largely self-made men, whose brains in early life did not cripple physical development, and whose nerve fibre to-day possess intellectual power, the result of practical education, applied in the normal or natural. Sir Walter Scott, when attending the University of Edinburgh, was called the great blockhead, and yet the world has recognized the gradual development in him of latent intellectual power. His field sports contributed largely to his success. Again, it is well known that Wellington, the hero of a hundred fights, when once looking at the boys engaged in their sports at Eton, where he spent his boyish days, remarked that "it was there the battle of Waterloo was won." Again, we find, that Hodson, of Hodson's Horse, in writing from India, attributed largely his success, physically speaking, to a sound digestion. The necessity of care and close attention to the maintenance of a proper balance between the body and the mind cannot be too carefully borne in mind. The speaker, after dwelling at considerable length on the subject, adverted to the question of summer holidays in public schools, recently brought before the Ontario Government. The point argued was that three instead of six weeks were quite sufficient as a holiday. However, it was very properly left to the discretion of the various educational boards, who he hoped would consider it in a sanitary point of view, and extend the full six weeks as a summer vacation. Medical men in the various districts would no doubt have opportunities of examining closely into this whole subject, of such vital importance, inasmuch as the proper estimation of it was intimately connected with the welfare and prosperity of our common country.

Dr. Hill, after expressing his pleasure at hearing such an excellent address, stated *ex cathedra* that he considered the common grammar schools were a most fruitful source of poverty and crime. He was opposed to teaching girls algebra, and would prefer that they be taught to cook and sew and attend to household duties. He complained that children under five years of age were sent to the public schools in order to relieve their parents of the

trouble of nursing them. He also denounced the Kindergarten system as a most ridiculous one. In conclusion, he desired to move a vote of thanks to the president for his able address.

The motion was seconded by Dr. Cranston, and on being put to the meeting by Dr. Sweetland, was adopted.

Dr. Sweetland said he thoroughly coincided with the remarks of the president. He considered the curriculum of the common schools too oppressive for the proper education of children, many of whom were entirely too young to attend. Children often became imbued with the idea of earning an easy livelihood without working for it. He thought the Legislature would have to provide instruction for those who intended to earn their livelihood by laborious work, and also instruction for those who desired to follow the professions. He considered that too much brain work affected the physical welfare of children.

Dr. Kellogg, of Perth, read a very interesting paper, giving an account of a visit to the hospitals in New York.

It was decided to hold the next meeting in Carleton Place.

Drs. Cranston, Powell and Malloch were appointed to prepare papers to be read at the next meeting.

After a vote of thanks to the chairman the meeting adjourned.

Miscellaneous.

FIRST CLASS MEDICAL PRACTICE IN HAMILTON FOR SALE.

TENDERS will be received for the good-will of the business of the late Dr. Charles F. A. Locke, with his Medical and Surgical Books, Medicines, and Surgical Instruments; also, for the unexpired term of the Lease of his late Residence and Surgery.

Possession can be given at an early day.

Tenders to be addressed to the undersigned.

CORBET LOCKE,

Solicitor, Hamilton.
Dated at Hamilton this 1st
day of March, 1880.

Births, Marriages, and Deaths.

BIRTH.

At Hamilton, on the 6th of March, the wife of John A. Mullin, M.D., of a son.

DEATH.

At Galt, on the 10th March, John Roy Philip, M.D., M.R.C.S., Eng., aged 51 years.

THE Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

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TORONTO, MAY, 1880.

Selections: Medicine.

THE PRESENT AND PERMANENT TREATMENT OF DISEASE.

BY J. MILNER FOTHERGILL, M.D.

When the general practitioner is called in to see a new patient, he finds it expedient to provide immediate relief, if possible. If the case were one of his patients with whom he has become fairly well known, and whose confidence he had previously gained, his practice would perhaps be somewhat different and would be directed to the permanent interests of the patient, rather than the immediate present. Say he is called in to see a case of early phthisis where the cough is troublesome, causing the patient much discomfort; and yet the cough is fruitless as to any removal of the exciting cause of the cough, viz., the new products in the lung. The first impulse is probably to give some preparation of morphia or opium—say paregoric with some spirits of chloroform, given to make it more agreeable in mint water. Probably most of us would regard this as the most appropriate thing to be done, and our proceeding would in all likelihood be followed by the relief of the patient's sufferings, the gratitude of the friends, and an increment of reputation to the practitioner for his skill and capacity. Yet it may be questioned whether this treatment may not be directly injurious to the patient's true interests; especially if continued. As to the expediency of it at the time, probably no two opinions exist. But the danger lies in the very fact that relief is so afforded; and that the patient in consequence has a decided liking for the medicine, and is indisposed to give it up for

something else, the good effects of which are not so quickly manifest. The practitioner is conscious that while the opium allays the cough, it also exercises its effects upon the stomach; by blunting the terminal ends of the gastric nerves the sensation of appetite is lessened, and the inclination to take food diminished. It also influences the nerve-ganglia along the intestinal canal, and in doing so checks the peristaltic movements; and thus locks up the bowels. It thus strikes directly at one of the most important matters in pulmonary phthisis, namely, the keeping up the nutrition. Further, opium excites the action of the sudoriferous glands, and so adds to the exhausting night sweats which the patient probably has. Profuse sweating is justly dreaded in phthisis; whatever else it may, or may not do, it certainly drains away the salts of the body, whose loss is injurious. Those who have watched carefully the progress of phthisis must be painfully aware of the exhaustion which profuse night sweats occasion; and of the return of appetite which usually results almost immediately from their arrest. So long as they continue it is of little avail to give meat juice, milk, preparations of phosphorous, or other salts; for as fast as they are furnished to the system, they drain out in the pernicious night sweats. Now, if these effects of opium upon parts which we do not wish to influence, and which are directly injurious, are not got rid of, the line of treatment to be adopted on first seeing a phthisical patient may, and probably will, do as much harm as good; possibly more harm ultimately. If, as has been recently suggested, the effects of opium upon the sudoriferous glands be antagonized by the co-administration of belladonna, and its action

on the intestinal canal, met by giving it in a laxative vehicle, as a little compound colocynth pill, then its good effects are largely secured, while its evil consequences are eliminated; and the minimum of evil and the maximum of good are attained.

The same holds good in bronchitis where there is much cough, due to the irritability of the dry, swollen bronchial mucous membrane in the first stage of bronchitis. Here, again, the general practitioner is tempted to give paregoric, or its equivalent in some form, and immediate relief is given to the troublesome cough. But the treatment is neither rational nor is it successful; it is not the following out of the natural processes, but the traversing of them.

The stage of vascular turgescence precedes and is followed by that of free secretion; and the first stage is kept up, the longer the case goes on without recovery. The opium checks secretion, and thus retards the oncome of the second stage; while it relieves the cough. A dose of opium at bed-time, with a few grains of James' powder, so as to procure free perspiration, is admissible enough; and often attains the desired end of lowering the vascular tension and thus procuring a condition favourable to free secretion. But this desirable end is not always attained, and if opium be given in the day medicine, success is somewhat problematical. The day medicine should contain ipecacuanha with iodide of potassium, and the patient encouraged to inhale steam; and then the first stage will usually be effectually abbreviated. This treatment, however, is much more troublesome, and not nearly so striking in its immediate effects, as the plan of prescribing opiates. When the irritative cough is very troublesome, some bromide of potassium will probably be found useful in allaying the reflex action cough; while it is largely free from the drawbacks which attach to the exhibition of opium or morphia. There is, too, a difference betwixt the necessity for hypnotics at night in order to procure some of "Nature's sweet restorer, sleep," and their employment as sedatives during the day; as day cough, though annoying, is not so exhaustive as night cough. In hospital practice night opiates are necessitated still further in order that the owner of the cough

may not disturb the other inmates of the ward.

In the same way must neuralgia be regarded. When it is severe the patient is anxious for immediate relief; and the practitioner probably gives a dose of morphia hypodermically, and almost instantaneous relief is so afforded. Or, perhaps puts on a blister in facial neuralgia, and dusts the raw surface with morphia, or prescribes a liniment of aconite and belladonna and gives an opiate; or, if a very advanced practitioner, a dose of croton chloral, or of gelseminum, and the patient is speedily more comfortable. There is not so much objection to such immediate treatment if the practitioner only recognize the casual relations of neuralgia; and bear in mind Romberg's famous dictum about neuralgia: "Pain is the prayer of a nerve for healthy blood," that is, blood healthy in quantity as well as quality. But if the first treatment is successful in affording relief it is very apt to be continued; and so the patient's real condition is that of growing worse instead of better. It may be essential to the acquisition of the patient's confidence to provide immediate relief; but having so acquired it, the practitioner should proceed to the measures which are required in the patient's real interest, viz., the removal of all drains upon the system, the curtailing of effort, and the exhibition of tonics and hæmatics. The two commonest forms of neuralgia in women, viz., intercostal and facial, are both usually accompanied by leucorrhœa with menorrhagia, or the act of suckling; and it is only by attention to these drains, that such neuralgia can be effectually treated. Strychnia, quinine, phosphorus, arsenic, and chalybeates may afford relief of a more or less permanent character: but the removal of the drain, or the improvement of the digestive organs, if the anæmia be due to digestive assimilation, is as essential to cure, as is their specific remedy in the neuralgia due to malaria, to syphilis, to gout, or to lead poisoning.

Then, again, take the hypodermic injection treatment for sciatica. I have only tried it once. It gave me immediate relief; but in the long end that was the most unsatisfactory case I ever treated; and this was due to the treatment, I felt sure.

Then, again let us review the associations of dyspepsia. In the first place it is much more common in women than in men, and this fact at once supplies material for reflection. True primary dyspepsia, with a foul or raw tongue, is not more frequent in women than in men; and is in each sex equally amenable to its appropriate treatment. With the foul tongue a laxative pill at night and an effervescent saline aperient in the morning, with a mixture of nitro-hydrochloric and strychnia three times a day, is usually sufficient for the relief of the patient. When the tongue is bare and denuded of epithelium then alkalies with bismuth are indicated. In each case careful attention to the dietary is essential. But where the dyspepsia is found with a clean tongue, as it very commonly is in women, then this treatment, though it may give relief in many cases, is futile to cure. Here the dyspepsia, often accompanied by nausea, and less frequently by actual vomiting, is reflex and set up by some far away irritation: mostly pelvic, and very often uterine, but more commonly ovarian. Local treatment, with the exhibition of sulphate of magnesia till the bowels are well open; and bromide of potassium to deaden the nerve tracts along which the irritating currents pass from the ovary to the stomach, will soon bring a malady, otherwise treated as very intractable, under control, and permanent relief be afforded. Yet some bismuth and hydrocyanic acid with an alkali may be the readiest means of affording relief to the patient, and meet with the approval of her friends.

How often, too, is a state of biliousness or even lithiasis most quickly relieved by a dose of calomel, or a mercurial pill, followed by a black draught and a seidlitz powder in the morning. The patient, satisfied with this method of obtaining relief, goes away and commits acts of error and indiscretion in diet; because relief can readily be obtained. Yet surely it will be admitted that it would be far better in the permanent interest of the patient to regulate the dietary; cutting down the albuminoids, substituting a dietary of fruit and farinaceous food for the meat, too frequently stated to be the only food the patient can take. By such means the work of the liver would be greatly economized, not only as to the storing up of glycogen,

but, what is more important, the work of the oxidation of albuminoids would be lessened; and so the attacks would not be induced, or to a very much less extent. An occasional mercurial, given, as the late Dr. Murchison advised, for the furtherance of the oxidising processes of the liver, at night, and a saline aperient in the day till the bowels are freely open, twice in the morning and once at bed-time, will, in a few weeks, bring many a long suffering, bilious being to a state of health, or a near approach thereto. This last line of treatment will do permanent good; the first encourages the patient along a road that must terminate sooner or later in organic changes in the liver or kidneys.

Again, let us look at the treatment of diarrhoea. How commonly is an astringent mixture, containing an opiate, prescribed without reflection! Of course, in a great many cases, immediate effects are produced which are gratifying to the patient. Yet in a certain percentage of cases such a plan is not only not successful, but does harm. In those cases where there is an offending mass in the intestines setting up a secretion to sweep it away—but where the secretion is set up too low for its removal—there is a teasing diarrhoea, a persistent desire to go to stool, with small, ineffective motions affording no relief. Here the ordinary diarrhoea mixture only does harm; and what effect it has is to arrest a spontaneous reflex act often of a beneficial character. The proper treatment is to administer a dose of castor oil, or, better still, a scruple of rhubarb in powder, by which secretion is set up above the offending mass, and it is swept away; after which the diarrhoea ceases. The secondary action of rhubarb in constipating the bowels, renders it the agent *par excellence* for the treatment of this form of diarrhoea. The astringent and opium treatment of diarrhoea is equally, or still more out of place in those cases where there is a fecal mass lodged or accumulated in the rectum. Every surgeon who sees much of the diseases of the rectum has instructive stories to tell of cases where the patient has consulted a large number of eminent physicians, without avail, for a persistent diarrhoea. The usual mixtures in great variety are prescribed without effect. At last the per-

sistent tenesmus drives the patient to a rectal surgeon; who, on examination, finds a solid mass in the bowel, around and past the sides of which the thin fecal motion passes. Here diarrhoea is the only means by which the bowels can be emptied; and it is fortunate that the astringent mixtures are inoperative to arrest this diarrhoea, else the patient's condition would, indeed, be a serious one. The mass is removed, and then the diarrhoea spontaneously ceases.

Then, again, take the common resorts to stimulants in fever. That they may be indicated at time of acute peril from collapse we may grant; they may enable the convalescing patient to eat more food; but given as they commonly enough are, during the fever, they are injurious. They make the patient feel a little better for the time by calling out a little of his reserve force; but what good, in the name of reason, does that do? It only dissipates, squanders in useless displays, what should be economised with the utmost diligence for the critical time when it is required, and when it is invaluable. If the reserves be called out and wasted early in a battle they are not there at the critical moment—and the battle is not won, but lost. So it is in fevers and some other acute diseases. Milk, and not alcohol or beef-tea, should be the food at these times. Who that has attended much midwifery among the more ignorant classes, will fail to recognize the truth of what I am about to say? A primipara is in labour, and all is well; but the advance is not rapid. Every time the doctor turns his back, he returns to find the patient with strong pains and bearing down energetically; yet the os is only the size of a half-crown piece. Some foolish but well-meaning person has been giving that patient alcohol, and encouraging her to put forth useless efforts. Unless the medical man can stay by the case, and watch this meddlesome person like a cat watches a mouse, the case will have to be terminated by the forceps; because the woman is spent and her power of effort gone, wasted in useless bearing down. Of old, commonly enough, the patient got a pretty stiff opiate, which sent her to sleep for twenty-four hours, when the labour—for labour then it was and no mistake—recommenced. But that twenty-four hours of the head pressing upon the

tissues, and especially the urethra, will cause the patient to run great risk of a vesico-vaginal fistula, or slough in the posterior vaginal wall, with its disagreeable consequences. In midwifery and acute diseases the reserves should never be called out till the time for them comes; when they have been thrown away they are not forthcoming, and the result is disaster.

Then, again, it is not always well to hasten convalescence, especially when the kidneys are implicated. Their function must be remembered. I will give an illustrative case which occurred to me a dozen years ago; but its lesson is as fresh as it was a month after the disaster. A girl was doing well after acute nephritis, on milk and a restricted dietary; going on steadily, but slowly. The friends desired a consultation; thought something more might be done. Meat was added to the dietary, iron to the potash and buchu. We overran the powers of the kidneys; and the girl died of uræmia, in spite of everything that could be done.

But of all abnormal conditions when the immediate treatment of disease is to be utterly subordinated to the permanent interests of the patient, that of endocarditis stands out most prominently. Here there is acute inflammation of the endocardium which lights up a growth of connective tissues in the fibrous structures of the valves; most commonly the mitral and less frequently the aortic. It is not the acute inflammation here which causes any alarm, it is the growth of connective tissue which we dread. Such connective tissue has a natural tendency to contract after a time, and consequently the growth in the cardiac valves sooner or later mutilates and distorts these valve curtains until they either become insufficient to close the mitral ostium on the ventricular systole; or the free edges become fused together, and constitute an obstruction to the flow of the blood through the mitral orifice. It is obvious that the rational treatment of this condition is to limit, as far as possible, the growth of this connective tissue; for once developed it cannot be absorbed, though in certain works even of recent date, ioduretted frictions are recommended; and will eventually contract and cripple the valve curtains. How is this to be done, is the question. I have insisted in the recent edition of my work

on *The Heart and its Diseases*, that the rational line of treatment is to be guided by what pathological observation teaches us as to the first stage; and the acknowledged principle of giving parts which are the seat of morbid changes, physiological rest. Consequently the patient should be kept quiet in bed; not only till all acute symptoms have passed away, but for some days longer.

It is impossible to give the mitral valve curtains complete rest; but comparative rest may be afforded to them. Every time the ventricle contracts the mitral valve curtains have to bear a strain equal to the distension of the elastic arterial system; the higher the blood pressure in the arteries, then, the greater the strain on the mitral valve curtains; the lower the blood pressure in the arteries, the less strain on the mitral valve. Consequently the patient should be kept quiet in bed; and have the blood pressure kept low by repeated doses of chloral hydrate, for some days after the evidences of acute endocarditis have passed away; so as to keep the inflamed valve curtains as quiet as possible, and to reduce the strain on them in each ventricular systole. By such means rest, that is, comparative rest, is furnished to the inflamed valves; and thus the growth of connective tissue is limited. The subsequent contraction is in proportion to the amount of growth; and the more the growth is limited, the less will be the ultimate mutilation. This is too clearly apparent for any cavil as to how it can be demonstrated in each case that the injury has been limited by such plan of treatment. It may not be possible to demonstrate in every case the good so achieved; but the adoption of this plan will be apparent enough in a series of cases. To limit the mischief at the outset is the essential treatment of acute valvulitis. If the growth of connective tissue can be limited, the distortion which results may be so small that the valves are still functionally competent to close the ostium on the ventricular systole. In such case the individual is little, if at all injured; and has got off practically unscathed. But how different is this plan to that advocated in text-books? Each plan of treatment, whether alkalies, blisters, or salicylates, it matters not, founds its claims to the

confidence of the profession on the number of days which elapse before the patient is up and about. Yet to let the patient get up and walk about is to throw more stress on the mitral valve curtains. But the mischief does not stop at this point; it is further advised to give digitalis, whose action, it is now well known, raises the blood pressure in the arteries. By such a plan the pressure on the mitral valve curtains is increased, and the growth of connective tissue encouraged; and with that the prospect of further distortion of the valves. Surely this is plain and incontrovertible. By lowering the pressure on the valves for some days after all active symptoms have disappeared, until, indeed, such time as the proliferation of connective tissue shall, in all probability have ceased, the primitive mischief is limited. The valve distortion which results has no tendency, unless it be in persons with very irritable tissues, to progress, but remains static; if the injury is slight, muscular compensation is readily developed, and the patient's prospects of life are good. But if the valve mutilation be great, then the compensatory changes are imperfect, and the case goes downward; without necessarily any advance being made in the valve lesion itself. Indeed it is in endocarditis of all diseases, that we can see how at times the immediate treatment of a case may have to be subordinated to the permanent interests of the patient.—*The Practitioner*.

ON GIACOMINI'S METHOD OF PRESERVING THE BRAIN.

BY WILLIAM OSLER, M.D., M.R.C.P., LONDON,
Of McGill University, Montreal.

A method by which brains could be permanently preserved as dry preparations has long been a desideratum to anatomists and physiologists. I should like, therefore, to call the attention of those interested in the subject to the following method devised by Prof. Giacomini, of Turin, and communicated to the Academy of Medicine in that city in 1878. A summary of his article, by Prof. Turner, appeared in the *Journal of Anatomy and Physiology* for January, 1879. I was struck with the description, and though somewhat sceptical, determined to give the pro-

cess a trial. The results have greatly exceeded my expectations, and I am able to state that by this method the brain can be permanently prepared in the dry condition, retaining the external form and general character in such a way that it appears like a beautiful wax model, I exhibited a set of brains thus prepared, at the Saratoga meeting of the American Association for the Advancement of Science, and from the numerous letters which I have received from various quarters respecting the process, I feel sure that its publication in full will be satisfactory to many.

As the *Journal of Anatomy and Physiology* has a very limited circulation on this continent, I will give Professor Turner's condensation in full:

"In the first stage, the fresh organ, still enveloped in its membranes, is immersed in a saturated solution of zinc chloride. In this it floats with a little of its surface above the fluid; and so, while its form is not interfered with by pressure, it must be turned two or three times a day, in order that all parts may be uniformly acted on. If the subject has been dead for some time, 600 grammes of the solution may be injected through the carotides under slight pressure, so as to give a firmness to the somewhat softened brain before its removal. After forty-eight hours the surface is hard enough to have the membranes removed. Let this be done without taking the organ out of the solution, or, if it be taken out, let it be put into water immediately, so that it may the less lose its form by pressure. After having been cleaned, let it remain in the solution till, as the hardening proceeds, it begins to sink no longer, and then remove it. At this stage it will be firm, slightly diminished in volume, the fissures a little opened, and the color whitish, unless the membranes have been left on too long, in which case the course of the large vessels will be stained of a rusty color from the blood pigment. Now it is immersed in alcohol of commerce for not less than ten or twelve days, but it may be for an indefinite period; here it sinks, and must be often turned to avoid deformity by pressure on the bottom of the vessel, and it is well to renew the spirit two or three times—the oftener the sooner the process is required

to be finished. After the alcohol, the consistence is greater, the size a little less, and the convolutions somewhat closer together.

"Now comes the second stage. Let the organ be immersed in glycerine of commerce, with one per cent. of carbolic acid added. When first put in, it floats with some of its upper surface above the surface of the glycerine; but, gradually becoming heavier as the alcohol evaporates and glycerine is imbibed, it sinks deeper and deeper until it is just level with the liquid; then it is taken out. In this part of the process neither surface, colour, consistence, nor volume are altered, but it becomes heavier. A brain should gain from 150 to 200 grammes in from twenty to thirty days, according to its volume. Now it is set aside for several days until the surface is dry, then cover it with several layers of gum-elastic varnish, or, better still, marine glue diluted with a little alcohol. This varnish is not to prevent evaporation—the glycerine does that—but is simply a protection against the dust and injury."

I have followed the details of the case very closely, and have nothing essential to suggest in alteration. Less than a saturated zinc solution will suffice. I have some well-prepared specimens in solution of the same strength as Burnett's fluid 50 per cent. The ordinary alcohol, or methylated spirit, as we use it in Canada, will serve. In these fluids the organ remains of a natural grayish white color, but in the glycerine it becomes a light brownish yellow. The purer the glycerine the less alteration in color.

In varnishing I have used the ordinary crystal varnish, which answers the purpose very well and leaves a nice light surface. A solution of gum caoutchouc in chloroform makes a good coating, but is darker.

The most troublesome part of the process is the removal of the membranes. From the lateral parts of hemispheres they strip off readily enough; but on the occipital lobes and cerebellum the pia mater is thin, and after two days' immersion is very adherent, so that it requires great care to remove it without tearing the brain-substance. In the preparation of a base to show the superficial origin of the nerves, great care is needed, and the dissection is very

tedious. In several instances in which the brains were very firm, I removed the membranes before placing them in the zinc solution, and found this answer equally well. Brains taken from patients dead of chronic wasting diseases, or from old persons, make the best preparations, as the fissures and sulci are wide, and the convolutions very distinct.

With the convolutions on one side labelled, and Ferrier's centres mapped out with red paint on the other, a brain prepared in this way makes a beautiful museum specimen, and is, moreover, exceedingly useful for demonstration in anatomical, physiological, and even medical lectures. Spots of cortical softening or hemorrhage on the surface can be very well shown, the lesion preserved, and its position accurately defined. Sections can be treated in this way, but when dried and varnished the contrast between the gray and white substance is not very marked. Still, vertical sections, made after Pitré's method, retain their characters sufficiently to show the relation of the basal ganglia and the ventricles, and they are much more convenient to handle than moist preparations. The process answers very well for mammalian brains; not quite so satisfactorily, Prof. Ramsay Wright, of Toronto University, informs me, for those of invertebrates.—*New York Record*.

INFLAMMATION OF THE INTERNAL COAT OF THE VESSELS IN TUBERCULAR MENINGITIS.—In 1867 M. Cornil demonstrated the blocking, with fibrin and white blood-globules, of the vessels of the pia mater running through tubercles. Further observation has convinced him that the lesions of the vessels in tuberculosis do not consist entirely of inflammation of their sheaths and external coats, but that there is also a special inflammation of the tunica interna, and to this tubercular endarteritis and endophlebitis he has called the attention of the *Académie des Sciences*. This more or less thickened membrane, situated in the middle of the tubercle, is formed of round, elongated, or angular cells, all provided with small rounded nuclei. Approaching the lumen of the vessel, some very large cells are found, giant-cells in fact, which in this disease are only found in the internal vascular coat. As a practical conclusion, M. Cornil advances the opinion that these alterations tend to prove the infectious nature of tuberculosis, the contagion being evidently carried to the tunica interna by the poisoned blood.—*Le Courrier Médical*.

ACUTE POISONING BY ERGOT FOLLOWED BY TOLERANCE OF THE DRUG.

Dr. Meadows records (*Med. Times and Gazette*, Oct. 4, 1879) the following case of poisoning by ergot which was treated at St. Mary's Hospital, London:—

Mrs. W., aged forty-eight, a stout, healthy-looking woman, was admitted on October 21, 1878. She had been married twice, first at the age of seventeen, afterwards at the age of forty. She had two children by the first marriage, but none subsequently, and her last pregnancy was twenty years ago.

Eight years before admission here she was under the treatment of Dr. Meadows, at Soho Hospital, for fibroid tumour of the uterus. During that time she took ergot twice. The first time it affected her severely; but on the second administration it failed to act on the uterus at all. She was in Soho Hospital at that time for three months, and left cured. In March, 1878, she came to St. Mary's suffering from menorrhagia, and was examined by Dr. Meadows, who detected a growth in the uterus. She was subsequently admitted in October; and on the 23rd of that month, patient being under the influence of chloroform, a fibro-cystic polypus was removed from the anterior wall of the uterus.

On October 31, pulv. ergotæ ʒss was ordered, with the view of bringing down any shreds of growth which might remain. The effects of this drug were very marked, as in ten minutes powerful uterine contractions were set up, and continued for two hours, when on vaginal examination a large tumour of the size of an orange was found presenting. In addition to the very strong uterine action there was marked depression, and she complained of severe nausea and headache. The face was deeply flushed, and the eyelids were swollen, the right one especially. The left arm and hand were greatly increased in size—so much so, that a ring she wore on her finger was completely hidden. The pulse, usually rather weak, was scarcely perceptible at the wrist, the artery being quite soft. The rate of the heart's action was not much influenced, but was slightly hurried. The swelling of the arm

and hand did not disappear until next day, when she was in all respects well. Dr. Meadows removed the tumour (which was attached to the fundus by a narrow pedicle) by means of the *écraseur*.

November 7. Ergot was given again, and it was found that another tumour was present. As one dose did not act at first, it was repeated in six hours, and the symptoms already noted appeared again, but in an exaggerated form. The pain was so intense that she was ordered a hypodermic injection of one-fourth of a grain of morphia, with the result of easing pain and checking uterine action. The tumour presented, but as operation was not then convenient it was not removed, and gradually receded.

On November 24 ergot was again given; but three half-drachm doses administered at intervals of six hours produced no effect beyond the swelling of the face and arms, depression, and nausea. Patient was then unsuccessfully galvanized with the view of stimulating the uterus to contract and expel the growth.

In this case there is a history of ergot having been given at five different times—twice at Soho Hospital, and three times at St. Mary's. Each time it has given rise to the peculiar symptom of the swelling of the face and left arm and hand. In three out of the five times given it has produced powerful uterine action; on the third occasion on which it was given, here, and on the second at Soho, it had no action on the uterus at all. This in itself is peculiar, and seems to point to a tolerance of the drug being established as far as the uterine fibres were concerned; probably the fact that galvanism also failed to excite contractions would show that the excitability of the uterus was much impaired. It may be noted that this patient suffered from a weak and dilated heart, and that there was a mitral systolic murmur to be heard.

Another case of ergot poisoning with similar symptoms occurred once before at St. Mary's, but in that instance the action of the drug appeared to have been cumulative, as large doses had been given daily for about three weeks, at the end of which time swelling of the face and arms, with intense depression and vomiting of dark fluid, had occurred.

THE TREATMENT OF CHOREA WITH ETHER SPRAY.

Dr. Mareiglia describes, in detail, four cases of chorea varying in severity as well as in cause. All had commenced with an alteration in the voluntary movement, after which disturbance of sleep and involuntary movements had appeared. In two cases these symptoms were accompanied by affections of the speech, whilst in one the movements were restricted to the right side, affecting only the facial muscles. In two cases, likewise, the cause was fright, in one a previous attack of meningitis, and in one rheumatism. The age of the patients varied from 7 to 14 years, and they were treated in every case with the ether spray as recommended by Lubelsky. The spray was directed along the whole length of the spine by means of a Richardson's apparatus for a breadth of 7 c.m. The application was continued for 3—4 minutes, and was made twice, thrice, and even four times a day. With the exception of the second case, which had lasted for three months, the disease had not continued for more than fifty days. The treatment with ether was carried on for 17—30 days, except in this second case, where the disease was of more than two months' standing, in which it was continued for forty-five days. Dr. Mareiglia describes the result of this mode of treatment as being immediately successful. The symptoms were lessened on the first application of the ether spray, and there was a marked improvement within the week. In the first successful case there was no reddening of the skin which had been subjected to the ether spray, such as had been noticed by Jaccoud, but there was a marked paleness with the formation of "goose skin." (*Annali Clinico dello Ospedale incurabili*, anno iii. fasc. v.—*Med. Chir. Rundschau*, Jan. 1879.)

BENZOATE OF SODA INHALATIONS IN PHTHISIS.—This remedy, so highly spoken of by Dr. Krocak, of Innsbruck, has not proved successful in the practice of many who have tried it. In many cases it has been neither curative nor beneficial.

A CASE OF EPILEPSY.—NEW REMEDY. —APPARENT CURE.

BY CHAS. M. SHIELDS, M.D.,
Resident Physician, Richmond Almshouse Hospital,
Richmond, Va.

A. S., colored, female, æt. 22, has been an inmate of the institution for over three years; and during that time, and for a year previous to her admission to the hospital, was the subject of epilepsy in its worst forms. The epileptic convulsions occurred nearly every day, and there were often many in a day. These continued to increase in severity and frequency in spite of the use of all the ordinary remedies. Among them bromide of potash, belladonna and ergot; and to eliminate the hysterical element, nervous stimulants.

For the last twelve months the paroxysms were so severe as to cause congestion of the lungs, and consequent hemorrhage therefrom.

At nearly every paroxysm there was such contraction of the pharyngeal and buccal muscles as to close the jaws so firmly that the use of chloroform was necessary to open them. The case becoming rather troublesome at this stage, and all the standard remedies having failed, we decided to try one that I had seen act well in the case of a patient at the Medical College Dispensary.

In this instance the patient, a white youth, had not improved with the ordinary treatment, and Dr. Wheat advised the use of the white peony root,—a small piece to be eaten three times a day. The convulsions soon stopped under its use, and for eighteen months there has been no return of the trouble. Instead of using the root we made a decoction as follows: Root of the white peony, $\frac{3}{4}$ x; boiling water, one gallon. Boil down to two quarts, and filter.

Of this decoction she took about one ounce three times a day for two months, and in that space of time she has had only one or two slight convulsions. She declares herself as feeling much better; and a week ago was discharged from the almshouse apparently cured.—*Southern Clinic*.

J. Sælburg Wells, M.D., F.R.C.S., England, the celebrated English oculist, died lately at Cannes.

VALVULAR HEART MURMURS.—THEIR RELATION TO PROGNOSIS AND TREATMENT.—Dr. A. Flint (*Med. News*, Jan. '80), concludes an interesting lecture on this topic thus: (1) Cardiac murmurs may represent lesions which, if unaccompanied by symptoms referable thereto, enlargement of the heart not co-existing, are to be considered innocuous. The prediction of grave consequences under the circumstances is unwarrantable, inasmuch as they may never occur. Such lesions do not claim medical treatment nor any extraordinary precautions, and it is desirable that the fact of their existence be withheld from patients, if this can be done with propriety. (2) Patients with valvular lesions are liable to suffer from functional disorders of the heart arising from causes which have no pathological connection with the lesions. It is highly important to recognize, clinically, the accidental coincidence in order to exercise a correct judgment as to the prognosis and treatment. (3) Various morbid conditions other than functional disorder of the heart, may be accidentally associated with valvular lesions and more or less cardiac enlargement. These associated morbid conditions may be in a great measure responsible for the symptoms and effects which seem to denote an advanced stage of the cardiac disease. Whereas, the latter may occasion but little inconvenience, provided these accessory co-operating conditions can be removed. (4) Valvular lesions involving either obstructions or regurgitation or both combined, and having led to considerable or even great enlargement of the heart, under favourable circumstances as regards associated morbid conditions, are often well tolerated indefinitely. There is less room for hopeful prognosis in respect of tolerance when there is considerable aortic insufficiency, than in case of aortic obstructive lesions and those which occasion obstruction or regurgitation at the mitral orifice. The danger of sudden death from aortic regurgitation is lessened by co-existing mitral insufficiency. (5) In cases of orthopnea and general dropsy dependent on mitral obstructive or regurgitant lesions and enlargement of the heart, digitalis and active hydragogue purgation repeated from time to time, not only often afford notable relief, but there is reason to believe that life is sometimes thereby much prolonged.—*Detroit Lancet*.

Surgery.

GASTROTOMY PERFORMED THREE TIMES ON THE SAME PATIENT WITHIN THREE YEARS.

Dr. Baumgartner, of Baden-Baden, states (*Berliner Klin. Wochenschrift*, No. 5) the following case: A woman, 33 years old, had a polycystic tumour of the left ovary, which was removed by ovariectomy in September, 1875. The operation was performed without antiseptic precautions, except that the peritoneal cavity was washed out after the operation with several litres of warm water. The pedicle was treated by a clamp, and drainage through the pouch of Douglas, was employed. The patient recovered, and was about, with the wound completely healed, by the thirty-fourth day.

She remained well until December, 1876, when, after a strain, she was attacked by violent pain in the cicatrix. This gradually increased until it became so severe that she was unable to turn in her bed, and even micturition became excessively painful. An examination revealed no possible cause for the pain except tension of the pedicle and its adhesions to surrounding organs. Gastrotomy was therefore performed in March, 1877, as the symptoms showed no remission. The pedicle was found to be adherent to the posterior wall of the bladder, the omentum, and some coils of intestine. These adhesions were separated, the pedicle was dropped, and the adherent portions of omentum were stitched into the abdominal wound. The patient recovered after several weeks.

In January, 1878, violent pain returned in the right ovarian region, which increased at each period, and at length became unendurable. The uterus was found to be normal. The right ovary was somewhat swollen and fixed. Near it was felt a swelling about as thick as a thumb, extending from the right ovary towards the centre and somewhat to the left, and itself also fixed. Febrile symptoms set in after this, and the patient's condition became visibly and progressively deteriorated.

Gastrotomy was therefore performed for the third time on August 19, 1878. The right

Fallopian tube was found to be distended by purulent salpingitis, and was removed together with the ovary. The substance of the ovary itself was normal. The pavilion of the tube was adherent to the ovary, and formed with it a funnel-shaped sac, which was filled with thick, cheesy pus, and had walls so thin in places that rupture might have occurred at any moment. The patient recovered, and left her bed on the 16th May, completely cured.—*Obstetrical Jour. of Great Britain*, Nov., 1879.

DISLOCATION OF FEMUR ON OS PUBIS (THIRTY-NINE DAYS' STANDING) REDUCED BY MANIPULATION.

Mr. H. G. Croly read a paper before the Surgical Society of Ireland on a case of this injury. Darby O'C., aged 40, was, on Sept. 22nd, 1879, struck by the wheel of a cart on the upper inner side of the thigh, knocking him down, and causing dislocation of the femur on os pubis. The accident happened in the country, and the local medical man tried to reduce the luxation by means of pulleys, while the patient was under the influence of chloroform. It was, however, not for two weeks after the accident that the pulleys were employed. As much force was applied as was deemed safe, but with no beneficial result. When he was sent to Dublin, five weeks after the accident, the right thigh was slightly abducted and flexed, and immovable; the head of the femur was felt like a billiard-ball in the groin. Mr. Croly had the man placed on a mattress on the floor, with his pelvis firmly fixed. He flexed the leg on the thigh, and the thigh on the abdomen, as far as possible, and rotated it forcibly for over half an hour, but with no apparent result; soon, however, there was felt crackling, as if from ruptured adhesions, and towards the end of the second half-hour, the head of the femur slipped into the thyroid foramen, and then back on to the os pubis. Some further manipulation got the head into the acetabulum, but without any sudden snap, such as was usually felt. The reduction was followed by a good deal of effusion into the joint, which gradually subsided under treatment

and perfect rest. Mr. Croly showed photographs of the man, taken before and after reduction, and quoted authorities in favour of manipulation, as being safer and more efficacious than the more violent mechanical measures. Dr. Bennett related a case of a similar dislocation, which had come under his care a few hours after the accident. He tried to reduce dislocation by means of extension and counter-extension, and for the purpose employed six strong men, but without effect. He then tried manipulation, as recommended by Bigelow, and the bones went in very soon, with a peculiar sensation, more like that felt when a bone was fractured, than the regular snap produced in reducing dislocations of the femur. He thought these two cases demonstrated that manipulation carried to full extent succeeded in reducing dislocations where pulleys and force had failed.

SPERMATIC COLIC.—Under this title, M. Re-liquet reports a curious case, occurring in a man twenty-five years of age, in which he had diagnosticated prostatic tubercle, and which presented the following symptoms: Violent pain during coition; painful sensations in the perineum, with frequent desire to urinate while riding in a carriage; frequent and violent emissions from the urethra of a liquid analogous to the spermatic fluid. Rectal examination revealed an inequality of the prostatic lobes, the right lobe presenting a well-defined swelling, which was continuous posteriorly with the vesicula seminalis. Pressure with the finger was painful, and induced a desire to urinate. A sound was introduced into the urethra and the tumor compressed between it and the finger. This manœuvre caused the expulsion through the urethra of a grayish mass, resembling vermicelli, and which examination showed to consist of altered spermatozoa and mucus. The spermatic colic, the retention of the semen in the ejaculatory duct, was the cause of all the symptoms. After repeated sounding, and further evacuation of the retained mass, the tumor disappeared and the reflex troubles of micturition were relieved.—*Journal de Médecine et de Chirurgie*, Dec., 1879.

VESICAL HÆMORRHAGE.

"If instruments are really necessary to withdraw blood and urine, then the slow injection of iced water, or better still of iced infusion of matico, may be useful. Even a mild solution of the tincture of the perchloride of iron as a cold injection, I have known in one case to succeed when all others have failed (3j t. ferri, ʒiv aquæ).—*Sir Henry Thompson*.

"Keep the patient on his back, and forbid straining as far as possible in passing water. To this end give opium liberally to subdue the painful and continued action of the bladder. Apply cold by means of bags of ice to the perineum and above the pubes. Better still, introduce small pieces of ice into the rectum. Do not use an instrument if it is possible to do without it. There is a great dread in some people's minds about the existence of a large coagulum in the bladder. Leave it alone: it will gradually be dissolved and got rid of by the continued action of the urine.—*Sir Henry Thompson*.

Dr. Prout (*Stomach and Renal Diseases*, 5th edition, p. 421) observes, "When the bladder becomes distended with blood, and complete retention of urine in consequence takes place, recourse must be had to a large-eyed catheter and an exhausting syringe, by the aid of which and the occasional injection of cold water, the coagula may be broken up and removed. If the hæmorrhage be so profuse that the bladder becomes again distended with blood in a very short time, the injection of cold water into the rectum or bladder is sometimes of great use; and should these means fail, from 20 to 40 grains of alum may be dissolved in each pint of water injected into the bladder, a remedy that seldom fails to check the bleeding even when the cause is malignant disease.

ENORMOUS CALCULUS.—*Boston Med. and Surg. Journal*: A urinary calculus, weighing one pound six ounces avoirdupois, was lately removed by Dr. Hodgen, of St. Louis. The stone was spherical, and measured eleven and a half inches in circumference and four inches

in diameter. The removal was by the suprapubic operation, and the calculus was necessarily broken. The patient was sixty-two years of age, and up to within a few days had been in the habit of walking from two to four miles daily. Fifteen years ago he had two stones removed from his bladder by Dr. Pope, and from that time has enjoyed remarkably good health, except some vesical irritation, and, during the last two years, incontinence of urine. Before the operation the stone could be distinctly felt as a hard tumor in the hypogastrium. The stone is composed chiefly of phosphates.

COMPOUND FRACTURES—At the New York Hospital, a somewhat new and apparently very admirable method of treating compound fractures, has been introduced by Dr. Markoe. Putting them up in Lister was tried for some time and it was thought to be attended with excellent results. But a wider experience shows the contrary. A compound fracture put up in Lister, has to be dressed perhaps a dozen times during the first week. Every time the dressing is renewed, the leg has to be disturbed, the fragments are moved and the parts irritated. The consequences are not good. The new method now adopted is to make a counter-opening to the wound in the injured limb, and to pass a large drainage-tube through this opening. The limb is then put up in a plaster of Paris dressing in which fenestræ are cut. Carbolyzed water is then injected through the drainage-tube every two hours during the first day, and three times a day after this. Care has to be taken not to run the tube next an artery, as hemorrhage may follow. With this dressing there is a very moderate fever, the thermometer does not often rise above 102° or 103°, and in some cases it does not reach 100°. Nearly two hundred cases have been tried by this method, and, it is stated, there has been only one death, that being in a very bad case. The treatment has diminished the number of amputations performed at the hospital. It certainly is a very rational one, and deserves further trial.—*Chicago Medical Journal and Examiner*.

A NEW INSTRUMENT FOR MECHANICAL COMPRESSION OF THE TESTICLE—The difficulty of obtaining and maintaining equable compression of the testicle has been recognized by all surgeons. To obviate the disadvantages of adhesive strapping and rubber bandages, Dr. Octavius A. White, of this city, has devised a new mechanical appliance. It consists of a very light shell of hard rubber, moulded so as to receive within its cavity the swollen testicle and its scrotal coverings. About one-third of the upper portion is bevelled off, this shape being found, by experience, to afford the best mechanical support to the pendulous organ. A cleft runs down the front of the shield, which permits free overlapping of the thin edges, thus making ample provision for all necessary reinforcement of compression which may be required during the management of the case. The edge surrounding the neck of the tumor is everted to prevent cutting. In applying the instrument it is desirable that there should be a certain amount of local depletion, which may be obtained by a short rest in the recumbent posture. A shield of the proper size is then fitted to the affected organ, and a narrow roll or bandage is passed around the upper part of the instrument, to prevent the testicle from slipping upward out of the shell during the succeeding manipulation, which consists simply of tightening the lacing strings connecting the two free edges made by the cleft described above. The prominent features of this scrotal shield, support, and compressor, are its remarkable lightness, the weight not exceeding eight grammes; great readiness and facility of application; complete command afforded the surgeon over the degree and duration of direct pressure to the testicle; firmness and general diffusion of the pressure; entire painlessness attending and during its application and removal, even though the scrotal sac be well covered by hair; and finally, perfect cleanliness, the fixture being easily taken off and washed. Among the diseases in which the continued use of this instrument has been productive of speedy and highly satisfactory results, are mentioned varicocele and neuralgia of the testis. The instrument is manufactured by G. Tiemann & Co., of this city.—*Boston Medical and Surgical Journal*.

Midwifery.

THE FEMALE PERINEUM; ITS ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

Dr. T. Gaillard Thomas read before the New York Academy of Medicine, a carefully prepared paper having the above title. The following is a brief abstract: The conventional description of the female perineum had been that it was the floor of the pelvis, that which fills the space extending from the inferior commissure of the vulva to the anus, and composed of skin, cellular tissue, muscles, and the mucous membrane of the vagina. Tyler Smith had spoken of the anatomy of the female perineum as having great interest, and yet gave it a description like the above. Playfair dismissed the subject, which he said was of great interest and importance, with less than eight lines, which were *three* more than given by Leishman and *four* more than written by Meadows. The French writers were usually quite full upon anatomical descriptions, yet Cazeaux dealt with it in three and a half lines. In this country, Meigs did not describe the female perineum at all, while no mention whatever had been made of it by Bedford, Byford, or Miller. The defence for the omission might be that the obstetrician did not write upon anatomy. Turning to anatomists, Cruveilhier limited his remarks to an enumeration of the muscles and the fasciæ, but said nothing with regard to its function or shape or relationship to surrounding organs. Sappey had not mentioned it, and Wilson and Gray had not done better. Holden *promised* better things, yet nowhere appeared one word about the female perineum, except with relation to its blood-vessels, and for those the reader had been referred to the description of the male perineum. In not one systematic work on gynecology had any mention been made of the anatomy, physiology, and pathology of the female perineum, except in the last edition of his own work, where it was described, he regretted to say, in a very incomplete and unsatisfactory manner. We owed to Dr. Savage the demonstration that the perineum in the female is a triangular,

wedge-shaped body composed of fasciæ, areolar tissue, muscles, etc., which filled the space between the backward curve of the rectum and the forward curve of the vagina. Savage was the first to demonstrate that the perineum was a triangular body and draw our attention to its significance and uses. At this point Dr. Thomas referred to the diagram ordinarily used to illustrate the description given to the female perineum, a diagram that distorted and made a false representation of the relationship which it held to the pelvic organs, and yet it was the one employed by Gray, Wilson, and many others, and commonly copied into works which dealt with the subject in a special manner. In the living or the dead body the vagina never was an open canal; the vulva never was distorted in the manner represented unless distended by a foreign body, which separated wall from wall. The normal vagina was a collapsed canal, the anterior wall lying directly upon the posterior and sustained by it.

Attention was then directed to a figure which represented what he regarded as the true relation which the vagina, the bladder, the uterus, the rectum, and the perineum sustain to each other. In it the uterus was represented as occupying a position in the pelvis considerably lower than illustrated in the diagram by Dr. Savage, and more inclined forward, and the vagina, instead of consisting of a canal, having a simple curve forward, presented a double curve: first, a decided curve from behind forward, then a lesser one downward and slightly backward; and second, a slight curve from above downward and backward. Instead of being a flat surface consisting of skin, areolar tissue, etc., filling the space between the anus and the vulva, it was seen as a perineal body, triangular-shaped, and composed of strong layers of adipose and elastic connective tissue, etc. It was a concavo-convex triangle, with its anterior side slightly convex, sustaining the superior wall of the vagina, while its posterior side, decidedly curved, supported the anterior wall of the rectum, which was supported by the base of the triangle and thus prevented from prolapsing into the vagina and out of the vulva. At its upper portion the vagina furnished a depression which received

the cervix uteri, so that, to a certain extent, the uterus was sustained by a shelf-like action.

The functions of the perineal body were the following:

1. It sustained the anterior wall of the rectum, thus sustaining the equilibrium between the rectum, vagina, cervix, and body of the uterus.

2. It sustained the posterior wall of the vagina.

3. Upon the posterior vaginal wall rested the anterior, and upon that the bladder, and against the bladder the uterus—all of which, to a great degree, depended for support upon the perineal body.

4. It preserved the proper line of projection of the contents of the bladder and the rectum, and thus prevented the occurrence of tenesmus, which was a frequent cause of pelvic displacements.

Dr. Thomas then referred to what he denominated the

KEYSTONE ACTION OF THE PERINEAL BODY.

Upon this part of his subject he dwelt at some length; first illustrating, in an exaggerated manner, by means of two diagrams, the action of the wedge-shaped body, and the results following its removal, and those were followed by two diagrams showing the effects produced, not exaggerated, by the loss of the triangular body; second, demonstrating the mechanical principles upon which the triangular body, with its base downward, could operate as a keystone in preventing a destruction of the equilibrium of the pelvic organs in a condition of health. He recognized the fact that the base of the keystone was downward, yet had reached the conclusion that upon its integrity depended the support of the pelvic organs.

What were the influences which most commonly disabled that wedge and rendered it insufficient and worthless, and caused the triangular body to lose its tonicity and power for giving support? 1, constitutional feebleness; 2, feebleness from prolonged over-distension; 3, subinvolution; 4, senile atrophy; 5, laceration. Dr. Thomas then spoke of the manner in which each of these causes operated.

Laceration was a splitting of the perineal

body, and had been divided into three degrees: first degree, when split for only a short distance; second degree, when split to its centre; and third degree, when it was divided entirely through, and at once removed the keystone from the arch. It did not take away support from the uterus, but it altered the shape and removed support from the vagina, and the secondary effect was direct traction upon the uterus. The relation which the perineal body sustained to obstetrics was next mentioned, and the fact stated that gynecological practice originated largely in the lying-in chamber, and rupture of the perineum, furnished one of the most fruitful sources for the introduction of septic material, for the development of engorgements, rectal and vesical prolapse, etc., to be found in obstetrics.

The doctrine that, so long as the rupture did not involve the anal sphincter it was a matter of but little moment, he regarded as very dangerous. Suppose it was torn down to the sphincter muscle, the immediate consequence was an exposure of an extensive raw surface, indisposed to heal by first intention, and quite near an abundance of blood-vessels, chains of lymphatic glands, and over that surface semi-putrid animal fluid must steadily pass for two or three weeks. It was a wonder that so many cases escaped septicæmia, when there was so perfect an arrangement favourable for the absorption of poisonous material. If all the cases of lacerated perineum were followed up closely from the lying-in chamber, the list of evils found would be a long one; some occurring at once, and others developing even at a very remote period. The evils enumerated were the following: septicæmia, anterior and posterior uterine displacements, prolapsus, cystocele, rectocele, chronic cystitis, chronic urethritis, uterine engorgement and hyperplasia, subinvolution of the uterus and vagina, destruction of the power of the uterine ligaments, development of a tendency to abortion, impaired sexual gratification, and neuralgia affecting the site of rupture.

As a rule, *immediate closure* of the wound, both as an immediate preventive of septicæmia, and a remote preventive of all the evils just enumerated, was advisable. If it failed, no

harm was done ; but if it succeeded, great benefit followed.

But the question might be asked, if, in the nonpuerperal state, the perineum be cut completely down to the sphincter muscle, will prolapse of the vaginal and rectal wall necessarily occur? No, not necessarily, but probably in time it would. Not in all cases of laceration of the perineum did prolapse occur; for, despite the laceration, involution might go on and the parts remain in tolerably good position, though they lacked the support of the perineal body; but such an occurrence was the exception and not the rule. The paper being before the Academy.

Dr. A. J. C. Skene remarked that he fully appreciated the value of the paper, and felt confident that all present would become better practitioners, both of obstetrics and surgery, for having listened to it. There was one point with reference to pathology to which he called attention, and that was the effect upon the muscular tissue especially, which took place after laceration had existed for a long time, and was produced by atrophy and fatty degeneration, thus rendering complete restoration impossible. The perineum could be restored as far as possible in certain cases of long standing, and yet it was almost useless. He therefore raised the question: how long after laceration has occurred can the operation be delayed, and yet, when it is done, result in giving the woman a serviceable perineum? He thought that after a time all the muscles connected with the perineum underwent fatty degeneration and atrophy, and became useless for all future purposes.

Dr. H. J. Garrigues remarked, that he had just been studying the subject of Dr. Thomas' paper, and had therefore listened to it with very great interest. In preparing an article for the *American Journal of Obstetrics*, on "The Treatment of the Perineum," he had had occasion to study the anatomy of the parts, and he would therefore remark upon points where his observation did not coincide with that made by Dr. Thomas. In the first place, it was a mistake to say that Sappey had not given the anatomy of the female perineum. True, it was not found in his description of the genital organs; but a full and exceedingly good de-

scription could be found in connection with his description of the rectum. In the second place, the expression perineal body was due to Savage, but Savage had himself stated that the excellent word was suggested to him by reading a description of this part written by the German anatomist Henle. Again, as represented correctly in one of Dr. Thomas' diagrams, the vagina was naturally a closed canal, but the illustrating acuteness of the angle between the uterine and the vaginal canal, he thought, was exaggerated. If so acute as indicated, he thought the introduction of a sound in comparatively healthy women would be more difficult than it was. He also thought that while Dr. Thomas was correct in placing the uterus lower down than illustrated in the old diagram of Gray and others, he had exaggerated it somewhat, and placed it a little too low. It had also appeared to him that the perineal body was not so triangular as represented, but that it was more rounded, the lower part of the body corresponding to the bulbous extremity, and the other to the head of an alembic.

Again, the superior sphincter of the rectum was not illustrated by Dr. Thomas' diagram, and the anus was represented as opening directly downward, while in reality it pointed more backward, and in the upright position it was about as much backward as downward, due to the fact that the rectum made a decided curve backward, thus influencing the shape of the perineal body, and contributing to give to it the alembic-shaped curve.

With reference to the *perineal body acting as a keystone*, he thought it true that as soon as an arch was suspended the keystone lost all its power as a keystone. In the case of the perineal body, the base of the keystone was not only placed downward, but all the pressure came upon the point of the wedge.

Dr. Garrigues then referred to masturbation in young girls as a possible cause of relaxed perineum. He regarded the question as settled in Europe, and, for the most part, in this country, that it was the duty of the obstetrician to close a ruptured perineum as soon as possible. It was, at least, in the highest degree desirable, and that because it was so extremely rare that union did not take place when the torn surfaces

were at once united. Out of *thirty* cases in which no operation was performed, there was only a single *one* in which union occurred to such an extent that the perineal body was entirely restored; in the *twenty-nine* there was but slight union.

Again, two-thirds of all the gynecological cases had their origin in the laceration of either the cervix or the perineum. For the reasons, then, that it did not unite properly without some special closure of the parts, and that so large a proportion of the gynecological cases had their origin in such an injury, the edges of these lacerated wounds should be united as soon as possible.

With reference to the manner in which a ruptured perineum should be united, it was, as a general rule, stated that it should be done by sutures. He thought stitches were not necessary, probably, in the majority of cases. Of course they were necessary in cases of complete rupture. If the laceration extended very far in the direction of the anus, and stretched up high in the vagina, sutures were necessary. If the rent extended high up, even though the skin was not torn at all, stitches must be used. On the other hand, if the laceration did not extend high up, or showed in the perineum for perhaps half its extent, he did not find it necessary to do more than unite the edges of the wound by means of *serres-fines*, first brought to the attention of the profession in this country by Dr. Matthew D. Mann.

As usually made, they were defective in two respects; 1. The legs were too short; they did not catch deep enough; and 2. The legs were much too strong, hence liable to cut through. Those made for him by Tiemann & Co. had long legs with small claws, and the first one he usually attached about one-third of an inch in front of the bottom of the rent, the woman lying on her left side, and others at intervals of about half an inch the whole length of the laceration. A slight suppuration was usually noticed about the teeth near the fourth day, but that soon disappeared, union was rapidly secured, and when complete the *serres-fines* were removed.

The President remarked that he felt great delicacy in speaking upon the subject before

the Academy, for no one more than himself highly appreciated the brilliant character of the paper. From the fact that the paper would attract great attention throughout the country, and throughout the obstetric world, it seemed to him that the doctrine brought forward should be subjected to some criticism before being accepted, and he felt less hesitation in offering some suggestions, from the fact of the well-known relation existing between the writer of the paper and himself, and doubtless whatever he might say would be answered most effectively. It, however, seemed due to science if there were any defects that they should be pointed out, and so give the author of the paper an opportunity to defend himself, and to correct those defects, if it should be proved they existed. He would then say: *first*, that in medicine the mistake was often made, as it seemed to him, of assuming a certain fixed standard, an ideal theory for premises, and basing all argument upon the ground that that theory was consequent, and therefore the conclusions must be true. Now, concerning an anatomical description of the female perineum and its relations to the pelvic organs, he begged leave to say that it was assumed that it had a relation with a certain ideal standard that was fixed, but which did not find its existence in nature. The relation of those parts was constantly changed—changed as the bladder and rectum were full or empty—changed as the patient was in the erect or the recumbent position, and that was especially so in connection with utero-gestation. In utero-gestation the relation of all the pelvic organs was changed; the uterus was increased in weight, there was congestion of the tissues; as the uterus became increased in size it gradually changed its position. Still further, the relation of the parts was entirely changed again, during the period of parturition, especially with regard to the condition of the muscular tissues, etc. Might not those changes, in a certain degree, vary the basis upon which the arguments were made that led to the conclusions reached in the paper? That was thrown out as one of the points which should be investigated before accepting the conclusions that had been reached.

Another point, to which reference has already

been made, was the necessity of an immediate operation to effect union when laceration of the perineum had taken place. He was well aware the doctrine now taught by the most brilliant gynecologists and the most eminent obstetricians, was that it was our duty to at once operate as soon as laceration to any considerable extent had taken place in the perineum. While Dr. Garrigues had qualified the general teaching by saying it was almost universal in this country, it seemed to him that the doctrine should not be accepted, even so far as related to the simple application of serresfines, without carefully weighing all the attending circumstances. He admitted that, in certain cases where the general conditions were favourable, it was proper to effect union at once, either by the use of sutures or serresfines. The latter Chassaignac introduced in 1843, and he himself had used them over twenty-five years ago in Bellevue Hospital.

The point which he made was, that the simple fact of laceration should not alone decide whether it was proper to operate at once, or wait and allow spontaneous union to take place, and, if that failed, then resort to the secondary operation. In several instances he had seen dangerous symptoms arise from the early operation, though resorted to with great care and prudence. In one case where extensive laceration took place, the patient went through the labour without great exhaustion or severe symptoms, and the physician at once performed the operation, closing the wound by sutures. He had hardly completed it, when the patient had a profuse secondary hemorrhage. In another case of extensive laceration of the perineum, the conditions were such that he argued against the opinion of two physicians, in favour of deferring the operation until it was determined whether or not spontaneous union would occur. In that case spontaneous union did occur, and the woman had a good perineum as a result. She had subsequently borne a child without suffering from rupture, and had not suffered from descent of the uterus. The point made was, that it was not safe doctrine to teach that we should always resort to the primary operation when laceration takes place. He made the remarks simply to give

the author of the paper an opportunity to demolish all that he had said.

Dr. Thomas, in closing the discussion, remarked with reference to Dr. Garrigues' criticism concerning the keystone of the arch, he confessed he felt uncertain on that point, and therefore took occasion to submit the view to two engineers, both of whom admitted that it was a real keystone of an arch; that is, that portion of an arch upon which the two lateral portions rested. The late Dr. Callender also expressed the opinion that the view was correct. Still, Dr. Thomas admitted the force of Dr. Garrigues' criticism.—*New York Record*.

THE CAUSATION OF STERILITY.—Dr. Levy, of Munich, gives the results of microscopic examinations as to the condition of the spermatozoa at different intervals after coitus, in the case of sixty women who were under treatment for sterility. In fifty-seven out of the sixty, catarrh of the uterus was present. In all these cases only a small number of spermatozoa could be detected within the uterus, and they had all become motionless at the interval of, at the outside, five hours after coitus. In healthy women, on the other hand, the author found that the movements of the spermatozoa within the uterus continued for at least twenty-six hours. Thus the important effect of an altered character of the uterine secretion, in its destructive influence upon the spermatozoa, is demonstrated. The author believes that when the secretion is healthy the spermatozoa can make their way into the uterus in spite of flexions or stenosis. He draws the inference with respect to the use of tents or mechanical dilators for the cure of sterility, that, since these measures are liable to set up uterine catarrh, anti-catarrhal remedies must afterwards be used if the dilatation is to have any effect in promoting conception.—*Bair. Arztl. Intell. Blatt*, 1879, Nos. 1 and 2.

CANADIANS IN ENGLAND.—John Galbraith Hyde, of Stratford, Ontario, has passed the final examination for the L.R.C.P. and L.R.C.S., Edinburgh.

Original Communications.

CASES IN PRACTICE.

BY J. E. GRAHAM, M.D.

The following case I saw, through the kindness of Dr. Aikins :—

ALOPECIA AREATA.

Mrs. T., æt. 26, born in Canada. She has been married five years, and has three children. The latter are all healthy. Father and mother healthy, as are also her brothers and sisters. None of her relatives have been affected by any form of skin disease. The patient herself had always been in good health until the pregnancy with her second child (about three years ago), when she felt weak and debilitated. At that time her hair began to fall out. She first noticed that it fell out in round patches, which became perfectly bare. The bare patches gradually increased in size until, finally, every hair had disappeared from the scalp. A similar process had at the same time been going on in other parts of the body, so that at last even the lanugæ were not to be found. Her hair had originally been long, thick, and of a brown colour. It might be here stated that during her first pregnancy she noticed a small bare spot on the scalp, but the hair afterwards grew in again. Her head remained bare during the time she nursed her second child until she became pregnant with her third, when it began to grow in again. It grew in very thick and fine, and of a slightly darker colour. The hair continued to grow in again until her third child was three months old—that is, until about four months ago—when it again began to disappear. All the hair of the head and body fell out the second time in a similar way to the first attack. The hair had grown to the length of from one and a half to two inches.

There has been a purulent discharge from the ears for the last six months. She has also complained of severe pains in the head, which seem to be of a neuralgic character.

Present Condition.—She is apparently a strong, healthy woman. She complains of pain in the back and between the shoulders. Her appetite is variable. She suffers also from sore

throat. There is a discharge from the vagina of a purulent character. The scalp is almost perfectly denuded of hair, there being still a few around the lower and back part. The integument of the scalp is soft, and presents numerous depressions of the hair follicles. On examination with a lens, a number of black spots are seen in the depressions. No lanugæ are anywhere to be found on the body. The nails grow slowly and present numerous furrows. They break off easily. This condition of nail has always existed, but to a greater extent since the hair fell out.

Treatment.—Tonics were given internally, and a stimulating lotion was ordered for the scalp.

Remarks.—Cases of alopecia areata are by no means rare; but those in which there is such a complete loss of hair as in the present one, are not often met with. From the history one would conclude that the cause of the hair falling out was of a constitutional rather than of a local character. The attacks occurred at times when she was out of health, and were so rapid and extensive in their progress that one can scarcely conceive how it could have had a parasitic origin. The condition of the nails would also tend to the idea of a constitutional origin. It is in the milder form of this disease that hair restorers have obtained so much notoriety. In most cases, no matter what treatment is used, the hair will grow in again. Relapses, however, are very common.

The following case was attended by me during Dr. Winstanley's absence from the city :—

CASE OF GRAVES' DISEASE.

Mrs. F., æt. 47, came under my observation on August 8th, 1879. The following notes were then taken :

Patient states that she has been ill on and off for the last 15 years. She noticed first a prominence of the eyes and an enlargement of the neck for some time, when it, to a great extent, disappeared. The prominence of the eyes, however, remained. On questioning the patient, I find that during the whole of her illness she has suffered from palpitation of the heart, but that this symptom has been especially prominent during the last six years. Two

years ago she noticed a swelling of the limbs and abdomen, which has continued to a greater or less extent since. Sometimes it has almost disappeared and then appeared again.

Present Condition.—The patient is a small woman and not much emaciated. The prominence of the eyeballs is quite noticeable; so much so that anyone would be at once struck by her appearance. There is some enlargement of the thyroid gland. The veins of the neck are enlarged and pulsate rapidly.

Physical Examination of Chest.—Lungs healthy. The heart beats irregularly. Apex beat towards the left. The area of cardiac dulness is increased. The first sound is of a loud, resonant, metallic character, but the second sound is normal. There is no murmur. There is a good deal of swelling of the abdomen, caused by effusion into the peritoneal cavity.

Treatment.—Unstimulating diuretics, laxatives and tonics.

Aug. 12. Patient feels some better. The amount of urine passed has increased under the use of the diuretic. The feet are not so much swollen. Pulse, 88; Respiration, 28; Temp., 99. She has noticed that for the last year she has not perspired much. Saw to-day two pictures of the patient—a daguerreotype one taken before the commencement of the disease, and the other a photograph, taken about four years ago. In the first, the eyes were not at all prominent; and the difference between the two portraits in this respect was quite marked.

Aug. 22. Examined the urine to-day. Sp. gravity, 1.016; high coloured. A small quantity of albumen was found.

Aug. 30. Was called to see Mrs. F. to-day. I found her in a high fever. The left leg was much swollen and red. The redness was partly due to congestion and partly to extravasation. There was a great amount of tenderness. On the right leg there were also spots of extravasation; but there was no tenderness and not so much swelling. The swelling in the left leg appeared to be of an erysipelatous character. Ordered iron and quinine.

Aug. 31. Patient somewhat better. She has no appetite. Up to the present attack her appetite has been good.

Sept. 6. Was called in company with Dr Winstanley to see the patient. We found her suffering from great dyspnœa. Her countenance was dusky. Respiration, 50 in the minute. The pulse was weak and rapid. The veins over the surface of the body were very much dilated, and pulsation was distinctly seen in the smaller ones on the backs of the hands. We ordered her cardiac sedatives.

Nov. 19. Saw Mrs. F. to-day. She recovered partially from the attack of dyspnœa mentioned above. I found her sitting up. There is a large amount of œdema of the lower limbs, abdomen, and also of the hands. She sits up for part of the day. Dr. Winstanley informs me that she has had several attacks of dyspnœa since I last saw her. Her countenance presented a thin, worn look, quite different from her appearance when I first saw her. Pulse is 84; very regular. The sounds of the heart are normal in their rhythm, and quite as loud as formerly. Urine examined—no albumen; no sugar; sp. gravity, 1.014.

In the latter part of November the patient died. The immediate cause of death was œdema of the lungs, the result of dropsical effusion. No *post mortem* could be obtained.

The most remarkable feature of this case was the very great distension of the veins throughout the body, and the fact that pulsation could be distinctly seen in the superficial veins on the back of the hand. This latter condition would indicate an almost complete paralysis of the vaso-motor nerves which supply the veins. The patient was happy and cheerful until within a few weeks of her death. She did not show any of that irritability or fretfulness of temper which are spoken of as characteristic of this disease. Her pulse was regular, ranging between 80 and 90, except during the paroxysms of dyspnœa, when it became extremely frequent and irregular. At all times the respirations were much more frequent in proportion than the pulse.

BROMIDE OF ETHYL.—Dr. J. Marion Sims, in a paper read before the New York Academy of Medicine, March 18th, related a case which terminated fatally twenty-one hours after the performance of Battey's operation. Death was apparently due to the action of the bromide of ethyl used as an anæsthetic. Dr. Sims, from a limited experience of the use of this new anæsthetic, would not use it in prolonged operations, or where there is organic kidney disease.

Translations.

COD-LIVER OIL EMULSION.

R	Yolk of eggs	No. ii.
	Mint water	3iiss.
	Triturate, and add by trituration	
	Loaf sugar, grained.....	3ii.
	Triturate, and add by trituration	
	Cod-liver oil	3viii.
	Spts. frumenti	3viiss.
	Tinct. opii camph.....	3iij.

PRIAPISM IN LEUCÆMIA.—By F. SALZER.

A saddler, 46 years of age, attacked probably with a lienale leucæmia, presented, without apparent cause, a priapism—at first of short duration, but which later persisted for six weeks, and was followed by the inverse condition, of absolute frigidity. There exist in medical literature analogous facts of prolonged priapism in leucæmics.—*Lyon Méd.*

PETROLEUM IN WHOOPING-COUGH.

Dr. Hildebrandt is an advocate of petroleum in the treatment of pertussis. His mode of employment could not be simpler. Small bits of rag are dipped into it and placed beneath the pillow of the patient, or are suspended on wooden hooks at the head of the bed. This method is as simple as economical.—*Revista de Medicina Y Cirugía Práct., Madrid.*

MIXTURE FOR ACUTE GONORRHEA.

R	Pulv. sacchari albi.....	3iii.
	Sodii bicarbonatis	3v.
	Acid benzoic	3iss.
	Essent limonis	qs.

M.

A teaspoonful to be taken six times a day in a tumbler of water—to be continued until, the discharge being altered in character, injections and balsams are prescribed.

HYPODERMIC INJECTIONS OF BICHLORIDE OF MERCURY IN SYPHILIS.

M. Sterne (of Breslau) recommends the following solution :

R	Bichloride of mercury, 0 grm. 25...grs.	3
	Pure chloride of sodium, 2 grm. 05...3ss.	
	Distilled water, 50 grm	3jss.

Seven minims 1 cubic centimetre to be injected every day.

This method—

1. Causes syphilitic accidents to disappear in a relatively short space of time.
2. Necessitates only a minimum quantity of mercury.
3. Gives rise to no local inflammation.
4. The general health is no wise troubled.
5. The stomatitis is insignificant.
6. This method is easier and cleaner than that by inunction.—*La France Médicale.*

COMPOUND SYRUP FOR WHOOPING-COUGH. (DELAHAYE.)

Alcoholic extract of belladonna, 5 grammes; alcoholic extract of ipecac, 5 grammes; alcoholic extract of quinine, 2 grammes; Mocha or Martinique coffee, lightly roasted, 250 grammes; boiling water, sufficient to make 500 grammes of infusion; crushed sugar, 500 grammes. Fifteen grammes of this compound syrup are given 8 times a day to children 3 to 5 years of age affected with whooping-cough. Below this age the dose is diminished one half. Dr. Jules Guyot used to prescribe an infusion of coffee, after each meal, in the dose of a teaspoonful to a dessert or tablespoonful, according to age, and each meal should contain grilled or roasted meat, hashed, to facilitate mastication by the little ones. MM. Rilliet et Barthez have not succeeded in aborting whooping-cough by means of coffee; but this agent has appeared to them valuable by diminishing, and even completely suppressing, the vomiting, and consequently enabling the children to bear food.—*L'Union Médicale.*

A NEW REACTION OF AMYLOID SUBSTANCE. By WEISS.

The new reagent employed is safranine, which is found in commerce in the form of a dark red powder, verging on brick red. It is obtained from impure aniline by nitric acid and arsenic. It is very soluble in alcohol, less so in water.

If the aqueous solution of this substance is employed, under the microscope the parts not touched by amyloid degeneration are coloured a beautiful rose, the parts affected are of

a fine, brilliant orange yellow. If the safranine has been dissolved in water acidulated with acetic acid the whole preparation is uniformly tinted rose, which Weiss does not explain.

The tissues are coloured very rapidly by safranine. The connective tissue is less tinted than the epithelial cells, and the cells less than their nuclei. The thick tissues are well coloured; those that have been hardened in alcohol better still, but not those which have been treated with chromic acid or the chromates. The preparations thus coloured are well preserved and kept for a long time in a saturated solution of acetate of potash. A few grains of safranine dissolved in water in a watch glass suffice to colour, in a few moments, microscopic preparations.—*Lyon Méd.*

For some years it has been advised to treat syphilis by subcutaneous injections of the sublimate, and innumerable trials have been made, most often with success. In Germany, it is Prof. Lewin who has most particularly attached his name to this method. This mode of treatment had the inconvenience of determining a very sharp pain, with notable infiltration at the point where the injection was made. Bamberger, of Vienna, proposed to replace the sublimate with the albuminate of mercury, which has not these inconveniences, but which, on the other hand, is difficult to prepare and still more to preserve. The peptonate of mercury, tried by Bamberger, Zeul, and Neissman, offers, on the contrary, many advantages. It is actually employed in Vienna in all the syphilitic services, and many German physicians have equally adopted it. Twenty-five to thirty injections, at the rate of one a day, sufficed according to these physicians. To prepare the solution of the peptonate of mercury, dissolve one gramme of peptone of meat in 50 cubic cent. of distilled water, add to the filtered liquid 20 cubic cent. of a 5 per cent. solution of the sublimate, and dissolve the precipitate in the necessary quantity (about 15 or 16 cubic cent.) of a 20 per cent. solution of chloride of sodium, then add distilled water to make in all 100 cubic cent. The liquor thus contains in each cubic centimetre one centigramme of mercury.—*Le Prog. Méd.*

PHYSIOLOGICAL VARIATIONS IN THE ANATOMICAL STATE OF THE BLOOD GLOBULES.

Dr. Dupérieré, of Paris, avers that—

1. The general average of the red globules of man is 5,100,000. The general average of the white globules is 6,800. The colouring power of the blood, individual value of a globule, varies from 1 to 0.66.

2. The blood of the new-born contains as many red globules as that of a healthy adult. The proportion of white globules is much higher—30,000 white globules are sometimes observed, when in the adult there are only 5,000. The blood of the new-born has special characters, which have caused it to be named, foetal blood.

A slight diminution of red corpuscles is found in the blood of children. The average of red corpuscles in the adult is 5,500,000; of the white corpuscles, 5,000. In the aged there are fewer red corpuscles.

3. The blood of the woman is entirely comparable to that of the man, and its elements are in the same proportion. Menstruation provokes the formation of a very large number of small red corpuscles.

4. The taking of food produces a diminution of the red corpuscles and an increase of the white.

Fasting produces an increase of the red corpuscles, which is the more considerable according as it is more prolonged, without, however, passing the physiological limits.

A nitrogenized diet appears to exercise no other influence on the blood than a mixed diet.

A vegetable diet gives rise to the formation of leucocytes. Milk diet likewise determines the appearance of a considerable number of white corpuscles.—*L'Union Méd.*

GENERAL PARESIS.

M. Lionet divides general paretics into two great categories: 1. Those who owe their affection only to themselves, that is to say, who have in their history an essential and sufficient etiology, based on excesses of every nature, on fatigues of all kinds in the absence of all hereditary predisposition. 2nd. Those who seem to be disposed by an hereditary influence.

Most, frequently general paresis is declared without hereditary predisposition. When heredity intervenes, the disease is present under two forms, congestive and maniacal. The hereditary cases, belonging to the congestive type, present cerebral troubles before becoming insane: those classed under the maniacal type are insane from the beginning.

There are then in general paresis three varieties: 1. General paresis of individual origin; 2nd. Of congestive origin; 3rd. Of maniacal origin.

General paretics of individual origin never present any remission, and the duration of the disease is only two or three years. Those of congestive origin are especially remarkable for the frequency of the congestions. They present remissions which are only simple seasons of arrest. They may live 6, 7 or 8 years.

The true remissions and of long duration, as well as the long prodromic periods, are the appanage of general paretics of maniacal origin. The duration of the disease varies between 10, 12 or 15 years.

M. Lionet declares against the doctrine of partial responsibility. During the prodromic period, and during the remissions of short duration, he thinks there really exists a psychopathic state sufficient to entail complete irresponsibility. On the contrary, when the patient is in a period of complete and true remission, he must be considered responsible. —*L'Union Méd.*

SLOUGHING OF THE PANCREAS.—Dr. Chiari showed recently at the Gesellschaft der Aertze, Vienna, a very singular preparation—a human pancreas which had sloughed and come away by the anus during life. The patient was thirty-eight years old, and until six weeks previously was perfectly well. He then became ill with symptoms of severe colic and intestinal obstruction. The abdomen became enormously swollen and everywhere painful. Then a considerable evacuation of the bowels occurred, the necrosed pancreas was passed per anum, and the man quickly recovered. Rokitansky described a somewhat similar case in 1864, and Chiari recently visited this patient and found him still perfectly well.—*London Lancet.*

THE CANADIAN

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TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, MAY, 1880.

THE NEW CORONERS' ACT.

The more the provisions of this Act become known the greater is the condemnation they receive. This universal disapprobation of the law cannot be taken in any other sense than as indicating a general belief that the measure is both unwise and unjust. To us it seems inexplicable that in a legislature containing so many members of the medical profession, some of whom have been coroners, such an objectionable Act should ever have been passed at all. The bill was introduced by the Honorable the Attorney-General; but it is generally believed that he was only the putative sire, and that its actual framer was a clerk in his office. He, however, adopted it as his own offspring, and therefore is responsible for its defects. The framer of the Act seems to have been governed by one *grand* idea from the first,—that of making coroners take an oath of some sort. They must *swear*; else, if he could prevent them, they should not hold any inquests. Some kind of a mediæval notion that coroners, above all judicial officers, should be made to swear in every case that it was necessary for them to perform their duties before they undertook to proceed with the initiatory steps, seems to have so thoroughly permeated his mind, that every other consideration was excluded. When the Act received its first reading the clause requiring coroners to take an oath that an inquest was necessary before they issued their warrants, was not in the Act at all. The first section of the original draft was,

if possible, even more objectionable than it is in its present form, and was as follows :—

"1. No fees for making a *post mortem* examination of the body of the deceased shall be allowed to any coroner, or to any medical witness who is a coroner, or to any medical practitioner who is a coroner, unless the coroner holding the inquest shall, prior to the issuing of his warrant for summoning the jury, have made a declaration in writing, under oath, . . . stating that, from information received by such coroner, he is of opinion that there is reason for believing that the deceased came to his death by other means than through mere accident or mischance."

Whoever could write such stuff as "to any medical witness who is a coroner, or to any medical practitioner who is a coroner," certainly never could have passed an examination before the civil service examining board; and should, before he undertake to meddle with Acts of Parliament again, be compelled to make "a declaration in writing, under oath" that he is competent to frame laws for the country.

The grand idea of oath-bound coroners appears to have been paramount to every other consideration with the writer; and the section would have been passed in its primal form had not some of the members of the Assembly sent to coroners copies of the Act immediately after it had passed its first reading. A few of the coroners who read the Act at once wrote to their representatives, pointing out the absurdities of the first section, and the introducer had to promise to have it amended. But the framer, bent upon the oath, and nothing but the oath, remodelled the section into its present form; and the law passed its final reading before coroners had had time to discover and point out its objectionable features. Lulled by the promise that the part complained of should be omitted, they were perhaps not thoughtful enough to ask their representatives to look sharply after the future readings of the Act. True, the section was altered; but how? The requiring coroners to swear that *post mortems* were necessary was changed into requiring them to swear that inquests themselves were necessary, as will be seen by reading the first section of the law in its present form.

"1. No fees shall be claimable by any coroner in respect of any inquest, unless prior

to the issuing of his warrant for summoning the jury, he shall have made a declaration in writing, under oath, . . . stating that from information received by such coroner he is of opinion that there is reason for believing that the deceased did not come to his death from natural causes, or from mere accident or mischance, but came to his death from violence or unfair means, or culpable or negligent conduct of others, under circumstances requiring investigation by a coroner's inquest."

Coroners are evidently expected, when they are informed of the sudden death of anyone, to go to the place where the body lies, examine it, hear the statements of those who may have found it, or know anything of the matter; and then either take an oath that an inquest is required and hold one, or have all their trouble for nothing! Since the passage of the Act numerous instances have occurred where coroners have been notified of persons having been found dead, but have refused to investigate them, because they did not like the idea of performing judicial duties gratis, and were determined not to take the oath under any circumstances. One of the most noted of the cases was that of Dr. Hillary, of Aurora. In the latter end of March, a farmer residing some eleven miles from Aurora called upon the doctor as coroner, and informed him that he had found his hired man dead in his barn. Of course, the doctor could not think of travelling upwards of twenty miles over execrable roads to inquire into the facts of the case, so as to be able to decide as to the necessity of an inquest, and thus lose an entire day for nothing; and therefore declined taking any steps in the matter. He, however, thought it advisable to inform the County Crown Attorney of the case by letter, and received a telegram from that official directing him to hold an inquest, which he accordingly did. The evidence taken showed conclusively that not the least necessity existed for the inquiry, the man having doubtless died from the effects of a disease which had troubled him for years. We cannot help thinking that, if the majority of coroners were lawyers, and not doctors, some provision would have long since been made for paying them for any trouble to which they may have been put in inquiring into the causes of death of any cases brought to their

official notice, and where they might deem inquests not called for. Most assuredly they would never have been expected to lose the time we have known coroners to lose on such occasions for nothing. Those coroners who think proper to take the oath must necessarily place themselves below the level of county justices of the peace, who are not required, before trying cases brought before them, to take an oath that they believe, from information given them, that a wrong or a crime has been committed.

To show how very carelessly and thoughtlessly Acts of Parliament are sometimes prepared by incompetent and presumptuous would-be law makers, we would direct attention to the fourth and last section of the Coroners' Act, as it passed its first reading, which was as follows :

"4. Any human body found dead within the limits of a city, town, incorporated village or township shall be buried at the expense of the corporation of such city, town, village, or township, but such corporation may recover such expense from the estate of the deceased."

A more obnoxious clause never found place in an Act of Parliament. Had the objections to it not been seen and indicated by others than the framer, the body of any well-known and worthy citizen, of the Honourable the Attorney-General himself, or even of the conductor of the section, if found *dead*, could and should be seized by the officers of the municipality where so found, and buried as they might please, without any reference to the friends and relatives whatever !

We confess we are out of patience with such law scribes as the framer of the present law relating to coroners' inquests has shewn himself to be. That there is necessity for a complete judicious law defining the duties of coroners, stating the cases in which they shall be brought into requisition, and making provision for the payment of coroners for any trouble to which they may be put in inquiring into cases of death where they may not deem inquests called for, we admit. That the Honourable the Attorney-General could frame such a law we certainly believe ; but that the compiler of the measure we have been discussing could ever originate such a law until he himself first became considerably amended, both as an English scholar and a jurist, we have most serious doubts.

TORONTO EYE AND EAR DISPENSARY.—We have received the twelfth Annual Report of this charity. Notwithstanding the fact that it is no longer supported by a Government grant, and receives only a small sum from the city corporation, it has continued its good work and afforded relief to a large number of the afflicted poor of the city. The Dispensary is now in operation at 65 Queen Street East, and the surgeon, Dr. Rosebrugh, is in attendance on Monday, Wednesday, Friday and Saturday, at 10.30 a.m. For the two years ending September 30th, 1879, the number of new patients admitted to the Eye and Ear Infirmary was 859. Of these 859, 658 were from Toronto, 35 from the County of York, and 165 from other counties in Ontario. There were 441 males and 418 females. Eye patients 660, ear patients 199. During the six months that the Institution has been carried on exclusively as a Dispensary, there were 184 new patients admitted to treatment, as against 167 during the same period the previous year. There is an average of about 25 patients constantly under treatment. Some are seen only once a week, some daily, and frequently there are special cases requiring to be seen twice a day.

HAMILTON MEDICAL BOARD.—REGULAR ANNUAL MEETING.—The regular annual meeting of the Medical Board was held on February 20th in the Council Chamber. The following gentlemen were present : Drs. J. Mackelcan, Geo. McKelcan, Billings, McDonald, Case, O'Neil, Biggar, Ryall, Malloch, Wilson, Franks, Kittson, Rosebrugh, Mullin, Griffin, Woolverton, Philip and Mills. On motion, Dr. John Mackelcan was elected chairman and Dr. Griffin, secretary. The minutes of the last meeting were read and adopted. The business of the meeting was to elect visiting physicians for the City Hospital in the place of those retiring—Drs. Malloch and G. L. Mackelcan. Dr. Malloch stated his desire to be again a candidate, and Dr. Mackelcan expressed his wish to retire. A vote was taken with the following result : Dr. Malloch, 14 ; Dr. Kittson, 13. Dr. Rosebrugh was elected to the consulting staff.

Book Notices.

Vicarious Menstruation. By H. G. LANDIS, A.M., M.D.

Therapeutic Action of Mercury. By S. V. CLEVENGER, M.D., Chicago, U.S.

The Fallacies of Popular Clinical Medicine. By JARVIS S. WIGHT, M.D. New York: G. P. Putnam's Sons, 1880.

On a case of Molluscum Verrucosum, presenting certain 'unusual' features. By JAMES NEVINS HYDE, A.M., M.D., Chicago.

Reflections upon the History and Progress of the Surgical Treatment of Wounds and Inflammations. By EDWARD BORCK, M.D., St. Louis, 1880.

Headaches; Their Nature, Causes, and Treatment. By W. H. DAY, M.D. M.R., C.P., London, etc. Third Edition. Philadelphia: Lindsay & Blakiston; Toronto: Hart & Rawlinson.

In this useful and practical book, the author classifies headaches according to their various causes, and founds his treatment thereon. He treats the subject in a common-sense way, without attempting to give anything very new or very brilliant. The work will be very acceptable to the general practitioner, who often experiences so much trouble in combating this common malady.

Pharmacology and Therapeutics; or Medicine, Past and Present. By T. LAUDER BRUNTON, M.D., F.R.C.P., F.R.S.; London and New York: Macmillan & Co., 1880; Toronto: Willing & Williamson.

This is a reprint of the Goulstonian lectures for 1877, in which the author describes the history of medicine in the past, and its progress; the present state of therapeutics, and the methods by which what is known of it as a science has been discovered. A rational and scientific system of therapeutics is shown to depend upon pathological and pharmacological research, and illustrative examples are

given of the way in which such research has been and should be conducted, and of the results attained. These lectures will repay perusal: they are an interesting and profitable reading.

Photographic Illustrations of Skin Diseases. Parts III., IV., V. and VI. By G. H. Fox, New York.

In a former number of this journal a very favourable notice was made of Parts I. and II. of this valuable work. Upon close examination of the succeeding numbers, we see no reason to change our opinion. There is no doubt but that these illustrations are among the best which have been issued.

It seems to have been the object of the author to dwell particularly on those diseases which are most frequently met with. Hence Nos. 5 and 6 are almost entirely taken up with eczema in its various phases.

This feature of the work should make it more valuable to the general practitioner, as it will enable him to recognize and treat the more common diseases successfully.

The remarks accompanying the plates are necessarily brief, but well chosen. The work will be complete in twelve numbers. We strongly recommend it to the notice of the profession.

Diseases of the Skin. By MALCOLM MORRIS, Joint Lecturer on Dermatology at St. Mary's Hospital Medical School, etc. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson.

On account of the number of very valuable books which have been published on skin diseases during the last ten years, it is exceedingly difficult for anyone to write a work which would be of real benefit to the profession. The task should only be undertaken by one who has had years of practical experience in the diagnosis and treatment of cases. Dr. Morris' work is too short for an exhaustive treatise and too long for a simple epitome. Very much more attention appears to have been paid to the morbid anatomy and pathological character of the various diseases than to their treatment. The results of all recent investigations are given by the author in a

clear and concise manner. So that in this respect the work is fully up to the time. It would have been desirable, however, if more attention had been paid to details in treatment, as it is in this respect that so many of us fail. In no class of disease is it so necessary for an author to go into minutiae in treatment as in those of the skin. We can confidently recommend the work to those who wish to learn the latest views on the pathology and causation of skin diseases.

Therapeutics of Gynecology and Obstetrics.

Edited by WILLIAM B. ATKINSON, A.M., M.D. Philadelphia: D. G. Brinton, 1880.

The object of this work is to present to the reader at a glance all the various methods by which the diseases of women are treated by the most noted specialists of the age. "Precise directions in the plans of treatment have been preserved and the exact formulæ presented whenever these could be obtained." Each chapter has been prefaced with a "Synopsis of Diagnostic Points," setting forth the distinctive signs and symptoms between the diseases considered in the chapter.

A very large number of formulæ are given, and these will be a great boon to the general practitioner, who has occasionally to treat diseases of the female genitals, as few men in general practice have time to look up all the various remedies that have been recommended by the specialists, and no single remedy or plan of treatment will be found universally applicable or successful in any given disease. The great number of remedies given under the head of each particular disease will at once suggest to the practitioner the idea of uncertainty, and prompt him to scan more carefully the modified pathological conditions which call for such diversity in treatment; and thus, probably, good will accrue from that which otherwise might result in the adoption of a mere routine practice. We are not generally in favour of placing books of formulæ in the hands of our younger brethren, as they undoubtedly have a dwarfing tendency on the mental vigor; but in the case of this work we make an exception, as it gives just enough in regard to treatment and symptoms to sharpen the appetite for more knowledge of the subject, and thus prompt the reader to a consultation of the larger and more standard works. We like the book very much, and have found it very useful and time-saving.

Outlines of the Practice of Medicine, with Special Reference to the Prognosis and Treatment of Disease. By SAMUEL FENWICK, M.D., Lecturer on Principles and Practice of Medicine at the London Hospital. Philadelphia: Lindsay and Blakiston. Toronto: Hart and Rawlinson. 1880.

This is a small octavo of 384 pages, well printed, in good clear type, on good paper, and attractively bound. The first chapter, on the treatment of disease generally, is well worth reading, especially by medical students, as it shows clearly the results of that fidgety, fussy kind of practice which is continually changing the prescription. In illustration, the author tells a good story of an old friend who, being called in consultation with a young practitioner, and finding that in ten days at least ten powerful drugs had been prescribed alternately, without benefit, recommended the doctor to try some *patience*, "a remedy that cured the patient." He says, "Never forget that most medicines require time to enable them to act upon the system. Even our most potent drugs, such as digitalis and mercury, must be given in repeated doses before they can influence the nutrition of a diseased structure. There is no more certain sign of a bad practitioner than the constant changing of his remedies. It shows either that he is doubtful of his diagnosis, or that he is uncertain as to the best means of subduing the disease he has to treat."

In Chapter II., on the treatment of acute local diseases, he says the same pathological change requires similar treatment wherever it may occur, and he sums up the indications for treatment in acute inflammation as follows:—

A. Ascertain, and if possible remove, the cause.

B. Watch carefully the condition of the heart and circulating system.

(a) The tension of the whole vascular system may have to be lessened.

(b) The local congestion may have to be diminished.

(c) The action of the heart may have to be increased.

(d) The inflamed part may require to be stimulated.

C. Watch carefully the condition of the nervous system.

(a) It may be necessary to act on the nervous system.

(b) It may be necessary to act on the nerves of the part affected.

D. In all acute inflammations insist upon rest.

(a) General rest.

(b) Functional rest of the affected organ.

E. In all acute inflammations, diet should consist of liquid food.

G. It may be necessary to remove inflammatory exudations.

(a) By mechanical measures.

(b) By medicines.

Chapter III., On the Indications for the Treatment of Chronic Local Diseases, is also well worth careful study; and we think it would have been well if the book had been limited to the fifty-five pages embraced by these three chapters, as they certainly contain all that is of real value in it. The balance of the work is devoted to the treatment of special diseases, contains nothing more than a synopsis of treatment, with a reference to the prognosis, while pathology and symptomatology are to be guessed at.

The treatment as far as it goes is given in very concise form and generally very good; but in regard to acute peritonitis we think that one or two grains of opium for the first dose, and one grain every three or four hours afterwards for an adult, will not do much towards controlling such a rapidly fatal disease, and we also think that many practitioners of the present day will hardly endorse the free use of opiates which he recommends.

We do not wish to find fault with a work intended to lighten the labour of an overtaxed profession, and which does contain many good things, but in our opinion it is too thin an outline.

The Hypodermic Injection of Morphia: Its Advantages and Dangers. BY H. H. KANE, M.D. New York: Chas. Bermingham & Co.

This little book is the result of much personal observation and experiment by its author, and a collation of the experience of three hun-

dred and sixty medical practitioners in all parts of the world. There are chapters on the "History of Morphia Injections," on "Idiosyncracies," on "Morphia Habit," &c.; but we would call special attention to those on "Narcotism," "Death," "Syncope," and the "Treatment of Morphia Narcosis," as being worthy of the very careful study of all who administer the drug in this manner.

In the chapter on Narcotism a vast amount of interesting experience is given, which shows that a wide range exists in the susceptibility of different persons. In many cases alarming results have followed the injection of doses not larger than $\frac{1}{6}$ or $\frac{1}{4}$ of a gr., and, while one gentleman speaks of giving 20 grs. of morphia, hypodermically, another says he had a patient sleep twenty-four hours after a dose of only $\frac{1}{12}$ th of a grain.

The conclusion arrived at is, that the commencing dose should invariably be small till the idiosyncrasy of the patient is ascertained, and then increased, if at all, very gradually.

The author thinks it highly probable that the use of morphia "is extremely hazardous" in such cases as "delirium tremens, acute mania, that class of acute pulmonary affections where the tendency is to death by the lungs, and in some forms of acute and chronic nephritis."

The chapter on Syncope embraces forty pages, and shows, like the one on Narcotism, that very small doses will sometimes, and most unexpectedly, produce very alarming prostration or syncope, but why they should do so is not made to appear very clearly. Many of the writers suppose that these effects have followed the injection of the morphia directly into a vein, some attribute them to the entering of a bubble of air into the vein, while some ascribe them to fright at the prick of the needle, and others, to rapid absorption.

The author says, "which of these hypothesis is the correct one is at present difficult to decide." Although we have never seen any of these unpleasant results from the hypodermic use of morphia, yet the record of so many hair-breadth escapes is well calculated to make the young practitioner tremble when contemplating the use of morphia in this way.

In the chapter on Death, he gives the records

of thirty-six cases in which death was ascribed to the injection of the morphia, but we must refer our readers to the chapter itself, where the details will be found sufficiently interesting to well repay perusal.

In the treatment of morphia narcosis, while he speaks of all the usual remedies, he appears to believe decidedly in the antagonism of morphia and atropia, but says, *we think correctly*, "that we are not justified in simply giving atropia with the expectation that it will do the entire work alone, but that there are other measures nearly, if not quite, as important and that these should never be neglected."

He says, "It has been experimentally and clinically demonstrated that about $\frac{1}{25}$ gr. of atropia should be exhibited for every grain of morphia taken, and *vice versa*." That although this is the approximate amount, "yet in every case the physician must decide alone from the condition of the pulse and respiration. If the respirations, after one or two repetitions of fractions of a proportionate dose, increase in frequency and the pupils commence to dilate, the hand should be stayed and other measures employed to improve the patient's condition. Too much atropine may prove decidedly injurious" * * * and too much is often given. The dose to begin with should not exceed the one-fortieth or one-sixtieth of a grain, and this may be repeated every fifteen, twenty, or thirty minutes, as the urgency of the symptoms may demand." Dilatation of the pupils is regarded by most writers as a very unsafe guide to the use of atropine for its antidotal effects.

As the hypodermic syringe is so universally resorted to, we would like to see Dr. Kane's book placed in the hands of every man who buys the instrument; and while it might tend to make some men timid, it would doubtless teach caution to all who deal with such a precious thing as human life.

NERVES IN THE MARROW OF BONES.—M. Rémy has examined microscopically the marrow of amputated bones, by means of chloride of gold, and claims to have discovered nerves. Some of them contain myeline, and are of small size; others are fibres of Remak. They are very numerous, follow the course of the vessels, and are, in all probability, vaso-motor. —*La Tribune Médicale*.

A Treatise on the Theory and Practice of Medicine. By JOHN SYER BRISTOWE, M.D., London. Second Edition. Revised by the Author. With Notes and Additions by JAMES H. HUTCHINSON, M.D. 1879. Philadelphia: Henry C. Lea. Toronto: Hart & Rawlinson.

Before the appearance of the first edition of this work, Flint's Practice of Medicine stood, in our opinion, for the general purposes of practitioner and student, "*Facillime Principes*;" but candour now compels us to admit, in spite of our old predilections for the latter, that Bristowe must henceforth take the lead.

In the edition before us we observe no important change or addition in the first 100 pages, devoted to general pathology. Coming from the pen of so accomplished a pathologist as Bristowe this section could not well be otherwise than admirable in all respects, and we would specially commend to students his clear account of tumours. The specific febrile diseases are considered in Chapter I. of Part II. devoted to special pathology, and are prefaced by some short but valuable remarks upon "Contagion," and "General Rules of Management." Speaking of these generally we may say that we know of no short account of the specific febrile diseases at all equal to this. There are, however, a few omissions to which we desire to direct attention. In the description of Rôtheln we find no mention of the enlargement of the glands, particularly the cervical, which is noted as being so prominent and characteristic by Dyce Duckworth, and others. Of the two diametrically opposed views of vaccination successively adopted by the author we prefer that expressed in the first edition, and are by no means inclined to agree in the opinion here expressed that "cow-pox is small-pox, modified and deprived of its virulence by transmission through the cow." On the subject of enteric fever we are glad to observe that the author inculcates the specific view of Budd as opposed to Murchison's pythogenic origin. Cerebro-spinal meningitis is described as a contagious fever, and although it is true the author has some countenance in this view from Stokes, Hirsch and Simon, yet we must remember that the vastly

preponderating weight of the majority of authorities is against him. The sound and rapidly prevailing doctrine of the identity of true croup and diphtheria is heartily supported by our author; but his American editor, Mr. Hutchinson, does not adopt this view, and urges the fact that "membranous inflammation of the larynx is sometimes caused by the direct application of irritants, showing that it is not necessarily in all cases of constitutional origin." We had fondly hoped that it would not have been again necessary to point out the fact that the most strenuous advocate of the identity does not deny that "scalding water will raise a blister," even in the healthiest subject.

We are at a loss to understand what the American editor means by the statement in his annotation "the results of tracheotomy are much more favourable in pure croup than in laryngitis." No mention is here made of the post-mortem appearances of Peyer's patches and the mesenteric glands, to which continental writers have directed attention in diphtheria. The account of epidemic cholera is especially good, but in the section on treatment no mention is made of Indian experience of the intravenous injection of chloral. In speaking of hydrophobia, Hutchinson's prophylactic measure, viz.: the extraction of the canines of all pups, receives no notice. Syphilis is regarded as a specific exanthematic fever. Pyæmia and septicæmia are described under the one caption in an excellent chapter, in which he briefly accords more than his wonted meed of praise to Lister's antiseptic dressing. In the chapter on leprosy, although the contagiousness of the disease is not admitted, yet the author seems disinclined to dispute its communicability, and gives currency to Liveing's view that it is capable of propagation by the inhibition of the excreta of lepers. Fish diet, as an etiological element, is entirely rejected. To the chapter on ague the American editor adds a short section on typhomalarial fever, and one on the treatment of the pernicious form of intermittent fever. In an excellent section of fifty pages diseases of the skin are treated of, and the author appears to be a close follower of the great Hebra and his school.

The description of physical exploration of the chest and its results is unusually clear and instructive. No account is, however, given of the varieties of pneumonia (apart from the croupous and catarrhal) nor of the different views of its nature, such as Fernet's herpetism of the pneumogastric. We regret to observe that in the treatment of the asthmatic attack no mention is made of the value of the nitrite of amyl or the iodide of ethyl, nor of the curative influence of iodide of potash long continued. A brief article on autumnal catarrh is intercalated by the American editor.

In the cardiac section we do not observe any reference to Potain's view of the causative influence of liver and abdominal affections in the development of lesions of the right heart by the reflex excitement of spasm in the pulmonary arterioles. Nor do we notice any reference to Goodhart's and Fothergill's opinion as to the etiological relation of prolonged anæmia to certain organic cardiac lesions; but on the whole this section is fully equal, if not superior, to that of any text book with which we are acquainted. In the treatment of attacks of angina pectoris nitrite of amyl is recommended, but no allusion is made to the very successful employment of nitro-glycerine, or glonoine, by Murrell and others. In this later edition we are pleased to observe an account of Dr. Ord's myxœdema, or what Sir Wm. Gull has termed "the cretinoid condition of adult women." In "dilatation of the stomach" we do not think sufficient stress is laid upon the value of the stomach pump and douche. A brief description of hypertrophic cirrhosis of the liver is also a new addition to this part. The section devoted to diseases of the kidney is an admirable one, and is followed by a short notice of affections of the pelvic organs. The chapter bearing on the anatomy and physiology of the nervous system is much improved by the insertion of a clear account of the localization of function, accompanied and elucidated by a number of diagrams. The American editor inserts a reference to tendon reflexes. In describing locomotor ataxy the absence of patellar tendon reflex is not mentioned in the first edition, but here finds a place. Although Charcot is largely drawn

upon in the account of paralysis agitans (or Parkinson's disease) yet we miss all reference to the phenomenon of "Lateropulsion" as a characteristic of this affection signalized by Debove in 1878. A long and very valuable chapter, of some 35 pages, on the subject of insanity, is added to and completes this second edition of the work. The student will probably be disappointed at the brief space allotted to treatment, but the author very wisely refers him to his text books on materia medica or therapeutics for any specific information desired upon this part of the subject.

If it should appear that in the foregoing remarks we have sought rather to enumerate the few deficiencies of the work than to detail its abounding merits, the reason therefor may be found in the fact that in the limited space at our disposal the former was the easier task; and although we hold that every practitioner should possess, "read, mark, learn and inwardly digest" Reynold's system, yet we are free to confess that among the many manuals of medicine which have hitherto issued from the press, student and practitioner alike will find his money most profitably invested in the purchase, and his time in the perusal of this second edition of Bristowe's Theory and Practice.

UNIVERSITY OF BISHOP'S COLLEGE.—At the late examinations, the following gentlemen passed their primary examinations in Materia Medica, Anatomy, Chemistry, Physiology, Practical Chemistry and Practical Anatomy for the degree of C.M., M.D.: Heber Bishop, B.A., Marbleton, Que., Prizeman; Ninian C. Smillie, Montreal, Que.; Walter de Moulpied, Nicolet, Que.; J. F. E. Tetreault, St. Pie, Que.; H. R. Willson, Montreal, Que.; E. Labrie, Chicopee Falls, U.S. The following passed their final examination for degree of C.M., M.D., in Surgery, Midwifery, Pathology, Medicine, Medical Jurisprudence and Hygiene: Henry B. Chandler, Boston, U.S., Gold Medalist; J. Leslie Foley, Montreal, Que., Final Prizeman; L. H. U. Gill, Pierreville, Que.; J. F. E. Tetreault, St. Pie, Que.; Edmund Labrie, Chicopee Falls, U.S.; Philip Dubé, Quebec, Que.

Miscellaneous.

CUTLER'S POCKET INHALER.—As will be seen by advertisement, the price of this popular inhaler has been reduced to \$1, or \$1 25 by post. Over 300,000 of them have been sold.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, KINGSTON.—The following students have passed their final examination before the faculty of the Royal College of Physicians and Surgeons in affiliation with Queen's University: *Without an Oral*—H. H. Chown, J. E. Galbraith, T. Wilson, L. E. Day, H. H. Reeve, W. A. Lovell, C. E. Empey, J. Odum. *With an Oral*—W. D. Reid, W. D. Waddell, C. D. Dickson. Messrs. D. Wallace and J. S. McEwen were appointed surgeons to the General Hospital, and Oldham and Gibson demonstrators in anatomy in the College.

TRINITY MEDICAL SCHOOL EXAMINATIONS.—The following is the result of the recent examinations at the Trinity Medical School:—Trinity gold medalist, Judson Ellis; Trinity silver medalist, H. W. Rath; 2nd do., J. McWilliam. Honours, Wm. Beatty, H. W. Smith, L. B. Clemens, R. Wilson. Passed, W. W. Boyce, M. Martin, J. E. Shaw, R. Patterson, J. A. McNaughton, F. B. Lundy, T. C. Spence, E. F. Hatton, J. A. Hunter, R. McWilliam, N. McPhatter, D. A. McTavish, E. M. C. McIntosh. Primary scholarship, W. F. Peters; 2nd do., T. G. Brereton, Honours, A. C. Gaviller, J. C. Urquhart, J. Ferrier. Passed, H. R. McGill, F. E. Woolverton, D. Lloyd, H. Kerr, J. A. Macdonald, M. L. Cameron, C. M. Freeman, J. Walker, W. F. McLean. First year scholarship, W. Bonnar.

McGILL UNIVERSITY.—The report of the medical faculty of McGill University states that the total number of students enregistered was 166, of whom there were from Ontario 75, Quebec 56, Nova Scotia 2, Manitoba 3, New Brunswick 8, Prince Edward Island 4, Newfoundland 1, West Indies 1, United States 16. The following gentlemen have passed their primary examination:—W. Cormack, Guelph;

J. H. Carson, Port Hope; A. H. Dunlop, Pembroke, Ont.; J. A. Grant, B.A., Ottawa, Ont.; Chas. M. Gordon, Ottawa, Ont.; J. B. Harvie, Ottawa; D. W. Houston, Belleville; A. McDonald, Paisley, Ont.; T. N. McLean, Perth, Ont.; Michael McNulty, Iroquois, Ont.; G. H. Mewburn, Drummondville, Ont.; Wm. Moore Owen Sound; H. O'Keefe, Lindsay; H. V. Odgen, B.A., St. Catharines; E. W. Reynolds, Brockville; W. H. Shaver, Wales, Ont.; Alex. Shaw, Seaforth, Ont.; G. C. Wagner, Dickinson's Landing, Ont.; Joseph Williams, London, Ont. The following gentlemen have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from this University:—D. K. Cowley, Ottawa; J. S. Edwards, London; D. G. Inksetter, Capetown, Ont.; B. E. McKenzie, B.A., Aurora, Ont.; R. C. McDonald, Perth, Ont.; M. McNulty, Iroquois, Ont.; A. F. Pringle, Cornwall, Ont.; B. L. Riordan, Port Hope; A. M. Ruttan, Napanee, Ont.; H. B. Small, Ottawa, Ont.

THE THERAPEUTIC VALUE OF PULSATILLA.—

Dr. James I. Tucker, of Chicago, in a communication to the *Chicago Medical Gazette*, Feb. 5, 1880, says: Pulsatilla is rapidly growing in favour with many practitioners. Though a very old remedy, having been known to Dioscorides and Pliny, it fell into disuse, if not into disrepute, and was not reinstated till about the beginning of the present century. I have used pulsatilla mainly in simple dysmenorrhœa, and here it has proved of decided utility. Its scope is, however, doubtless much wider. A very prominent lawyer of this city told me, not long since, that after trying the bromides, the valerianates and other remedies of repute for the headaches caused by excessive mental application, he found no relief till he made use of the tincture of pulsatilla. He is now never without it, and uses no other medicine for the cure of his headaches, which I know to be very severe. No such powers are attributed to it in the books to which I have access. This is an exceptional case, it may be, but it is a valid one. The tincture of pulsatilla should be made from the fresh plant, and given with caution. The dose is from three to ten drops.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—

It would seem that the various examining bodies in England are not over sanguine as to the rapid adoption of a Conjoint Scheme. A few weeks ago we referred to the changes which had either been suggested or carried into effect at the University of London and the Royal College of Surgeons. The Royal College of Physicians is now moving in the matter, and a new set of by-laws for the College licence was discussed and formally adopted at a meeting of the Fellows on the 16th inst. These regulations will make so many alterations in the conditions for this qualification that we must refer to them at some length. The most important change is one which we have long advocated, and which has our heartiest approval. Instead of two examinations, three are now introduced, and a complete rearrangement of the subjects is thereby necessitated. The *First Examination* is open to all candidates who have been registered as medical students by the General Medical Council, so that it may be passed at the earliest opportunity, that is, as soon after the student has joined a recognized medical school as he may think fit to present himself, or even whilst he is a pupil of a legally qualified practitioner or attending at a country hospital or infirmary. The subjects of this examination are Chemistry and Chemical Physics; Materia Medica, Medical Botany, and Pharmacy; and Osteology; and schedules will be drawn up indicating the range and extent of the knowledge that will be expected. Every pupil, therefore, who chooses to spend a certain time in the country before entering at a medical school, will have a great inducement to work at subjects which he can readily learn, and will be so far the better prepared for the earnest study of the more advanced and difficult parts of his curriculum. The certificates which are compulsory at this stage will merely state that he has received instructions in Chemistry and Chemical Physics, Practical Chemistry, Materia Medica, Botany, and Practical Pharmacy. The wording "received instruction" is very vague, and we venture to think that such certificates might have been dispensed with altogether. However, as it does not compel attendance on courses of lectures in subjects which the student

can readily learn by private tuition, or even in some instances teach himself, if he sets about doing so with a good text-book and the necessary practical material, we must congratulate the College on being the first examining body which has really recorded its protest against the unnecessary number of lectures which the medical student is compelled to listen to. Those who benefit by lectures may attend them; those who can learn these preliminary subjects without so doing will be at liberty to dispense with them. Botany and Materia Medica can, as a rule, be much more thoroughly mastered in the country than by attendance on a routine course of lectures. The *Second Examination* includes Anatomy and Physiology, and the range of subjects in the latter science is also scheduled. Candidates for this examination must have passed eighteen months at a recognised school, and must furnish certificates of attendance on a course of Anatomy, Physiology, and Practical Physiology (which is thus definitely separated from the ordinary theoretical lectures), and of having performed dissections for not less than twelve months. The *Third Examination* cannot be entered for until the expiration of two years after the passing of the Second, and embraces Medicine, Surgery, and Midwifery especially, whilst questions on Therapeutics, Forensic Medicine, and Public Health will be included. Besides attendance on lectures, certificates will have to be produced by candidates of having undergone systematic practical instruction in Medicine, Surgery, and Obstetric Medicine, and the character and extent of such systematic instruction is explicitly laid down. In insisting on this practical instruction the College is well advised, and we are sure that a great reform in bedside teaching at most schools must inevitably follow this regulation. The candidate must also have discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months. The regulations, therefore, whilst, sufficiently elastic in the early stages of the medical curriculum, are very stringent in the latter and absolutely essential portions, and we agree with the authorities of the College in preferring this plan of education to any other which has been submitted to the profession. A further boon

to the student is the exemption from re-examination in subjects in which he has passed at other examining boards, and in this respect also the College of Physicians has shown as much liberality as could be expected. A large number of candidates will be sure to present themselves for the license as soon as the new by-laws have been circulated and clearly understood in our medical schools and by the profession generally, and a qualification, which is now too little appreciated when we consider its value and meaning, will soon attain the public favour which it so eminently deserves.—*London Lancet*.

APPOINTMENTS.

Peter Macdonald, of the town of Wingham, Esq., M.D., to be an Associate Coroner in and for the County of Huron.

J. W. Wood, of Victoria Road, Esq., M.D., to be an Associate Coroner in and for the County of Victoria.

John H. Comfort, of the city of St. Catharines, Esq., M.D., to be Police Magistrate in and for the said city of St. Catharines.

Adolphe Robillard, of the city of Ottawa, Esq., M.D., to be an Associate Coroner in and for the county of Carleton.

Herbert J. Saunders, of the city of Kingston, Esq., M.D., to be an Associate Coroner in and for the county of Frontenac.

Dr. Kittson, of Hamilton, has been elected Vice-President of the Hamilton Medical and Surgical Society, in the place of Dr. Locke, deceased.

Births, Marriages, and Deaths.

BIRTHS.

At London, on the 14th of March, the wife of Dr. E. G. Edwards of a daughter.

At London, on April 13th, the wife of N. H. Beemer, M.D., of a son.

At Janetville, on Sunday, April 11th, the wife of John McAlpine, M.D., of a daughter.

DEATHS.

At Camlachie, on April 6th, Dr. S. G. Rutherford, late of Newry, aged 38.

At Chatham, April 12th, Margaret Sivewright, widow of the late J. H. Sivewright, M.D., aged 64 years.

At Cookstown, on April 7th, Marianne, aged 75 years, wife of the late Robert Paget, M.D., of Thornhill.

At Kingston, on April 17th, Alice Elizabeth, wife of W. G. Metcalf, M.D., Medical Superintendent of the Asylum for the Insane.

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R. ZIMMERMAN, M.D., L.R.C.P., London,
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Selections: Medicine.

ETHYLIZATION:

THE ANÆSTHETIC USE OF THE BROMIDE OF ETHYL.

BY DR. LEVIS, PHILADELPHIA.

My observations of the anæsthetic action of the bromide of ethyl, which commenced in April, 1879, have been directed to its physiological action in the human subject, to its practical application in the relief of human suffering, and to its value as compared with other anæsthetics. Every administration has been carefully watched and studied, and records of its phenomena have been made as they were observed. From such basis of experience, I present some facts which may at least help toward a proper estimate and appreciation of its therapeutic value.

Since the publication of my recent articles on the subject in the *Philadelphia Medical Times*, my continued observations have been generally confirmatory of the statements then made. I now summarize the deductions from my entire experience in the anæsthetic use of the bromide of ethyl, and present my convictions in regard to its comparative value.

The terms bromide of ethyl and hydrobromic ether are arbitrarily applied by chemists, in accordance with differing chemical nomenclature; but, for distinctiveness, and without reference to chemical accuracy, I prefer the former expression. I prefer to give to the substance the generic name of ethyl, and speak of ethylizing and ethylation on the same grounds as, by common consent, the words ether and etherization are applied to sulphuric ether.

The decided characteristics of the administra-

tion are its rapidity of action and the quickness of recovery from its impression. I have produced complete anæsthesia in cases of young children in less than one minute. The longest period required to produce the anæsthetic state in adults has not exceeded five minutes.

The ethylized patient recovers much more rapidly than is the case with chloroform or ether. Intellection and muscular co-ordination are regained very soon after the inhalation has ceased. In some instances these functions return as quickly as after the administration of the nitrous oxide gas, and frequently the patient, on awakening, is able to at once stand erect and to walk.

If the anæsthetic impression be slowly effected, a brief period of intellectual excitement, associated with muscular action or rigidity, may occasionally be manifested; but violent emotion and struggling, if they should occur, are more moderate, brief, and transient than in the early stage of the anæsthesia of ether or chloroform. The stage of excitement can generally be avoided by making a rapid impression of the anæsthetic. I have observed that persons accustomed to the habitual use of alcoholic stimulants are less readily impressible by anæsthetics generally, and with them a stage of excitement is apt to precede anæsthesia. In this class of subjects narcotics act as stimulants, and the same holds true with regard to anæsthetics.

As anæsthesia is developed, the circulation generally shows evidences of moderate excitement, as indicated by some increase in the rapidity of action of the heart, and the pulse evinces greater general arterial tension. The face of the patient usually become brightly flushed, and, when anæsthesia is profound, the forehead and the general surface are apt to be moist with sweat.

In these respects the anæsthesia of the bromide of ethyl differs from the ordinary pallor of countenance and the usual check of skin-transudation of chloroforming.

The physiological action of the bromide of ethyl does not incline to the dangers of cerebral anæmia and cardiac syncope, which sometimes occur in chloroforming, and, in my experience, no tendencies in such directions have seemed to threaten.

The respiration is slightly increased in frequency until anæsthesia becomes complete, when it assumes the characteristics of normal sleep. The decided indication of the attainment of very profound anæsthesia is the slowing of the patient's breathing, as in ordinary sleep, which becomes easy, long, and free. The irritation of the respiratory passages, which often inconveniences the inhalation of ether, does not occur in any degree with the bromide of ethyl. If brought into contact with the skin of the face, it is less irritating than chloroform.

I do not recognize any ordinary after-effects on awakening from the anæsthesia of bromide of ethyl, the patient speedily returning to his normal sensations and usual condition with but a drowsy sense continuing for a brief time. In my own person, the whole impression is more agreeable than is that of ether or chloroform; and others who have thus tried comparatively the different anæsthetics have expressed to me the same appreciation.

The liability to nausea and vomiting is less than after ether and chloroform, but it is not entirely avoided. Occasionally vomiting will occur when food has been but recently taken, and I have in a few instances observed decided nausea and retching when no food was in the stomach, and merely some frothy mucus was ejected. The quick relief from the anæsthetic impression of the bromide of ethyl seems to render less likely the long continuance of the distressing nausea and vomiting which are liable to follow etherization and chloroforming. It should be borne in mind that the fully anæsthetized patient never vomits, and the manifestation of nausea during the continuance of the inhalation is the indication for making the impression more profound. When vomiting occurs and persists after anæsthesia passes off, it can

best be relieved by giving to the patient small pieces of ice to swallow, or a full draught of ice-water.

The quantity of the bromide of ethyl required to produce anæsthesia varies with individual susceptibility and with the manner of using it. Its rapid evaporation causes much loss by diffusion in the atmosphere, but this waste may, with a view to economy, be to some extent avoided. I am in the habit of administering it by pouring two or three fluidrachms on several folds of woven lint, or on a small, soft linen handkerchief, over which is pinned a napkin, folded large enough to cover the entire face of the patient. Anæsthesia, in my experience, more quickly obtained without the intervention of excitement, if light is excluded, and the temptation to look about avoided, by covering the eyes with a napkin. This plan seems to me to be the simplest and the best, and I trust that the anæsthetic use of the bromide of ethyl may never become complicated or embarrassed by any forms of the absurd contrivances called inhalers. Such apparatus implies that all individuals are, under all circumstances, to be dosed with anæsthetics in the same mechanical manner. Nothing can be gained by any mechanical device for the purpose, excepting economy in the use of the anæsthetic, and some of the numerous devices would rather tend to wastefulness. A simple napkin or piece of lint, or both together, which absorb and gradually exhale the vapour, are perfectly effective and controllable as the means of administration, and nothing more can be required.

In commencing the inhalation of the bromide of ethyl, I prefer always to make a rapid and decided impression, with the lint and napkin held closely over the nose and mouth of the patient. It is the object to attain anæsthesia without the intervention of mental and muscular excitement. In the administration of another anæsthetic—the nitrous oxide gas—we are familiar with the uncontrollable excitement liable to be produced by slowly inhaling small quantities; and we know as well what profound anæsthesia is induced by rapid and impressive doses of the gas. In the method which I prefer, of administering the bromide of ethyl from a piece of folded lint and a napkin, it does not seem

possible to exclude so much atmosphere as to cause danger from asphyxia.

In my experience the entire quantity of ethyl consumed in effecting and continuing anæsthesia in any single case has varied from one fluidrachm used in a very brief period, to eleven drachms required in maintaining anæsthesia through an operative procedure of forty minutes' duration.

After having tranquillized the patient's mind by assurances of freedom from suffering and danger, I direct him to inspire and expire, for a time, as deeply as possible. The expirations should be so complete that the residuary air is expelled from the lungs. While continuing to thus breathe deeply, the inhalation is commenced.

This preliminary drill I regard as important, and it will always facilitate the proper production of anæsthesia. Until complete anæsthesia is effected, there should not be allowed a moment during which the patient does not inhale the vapour, and as the anæsthetic becomes exhausted it should be quickly replenished.

It is proper that the administrator of any anæsthetic should be able to recognize and be satisfied with the simple production of the anæsthetic state—insensibility to pain—without pushing the inhalation, as is often through ignorance or carelessness done, to a dangerously toxic condition. The best indication of complete anæsthesia is the change in the breathing of the patient to that of ordinary deep sleep. When anæsthesia becomes profound, there may be a more or less snoring or puffing sound, due to relaxation of the palatine and buccal muscles. With such manifestations the administration should cease, or be very moderately continued. It should be borne in mind that all anæsthetics become eventually, by continuance, depressing agents, and their administration should not be viewed as a matter of trifling responsibility, and entrusted to careless or inexperienced persons. The administrator should exclusively direct his attention to what he is entrusted with, regarding only the condition of the patient, and not observing the operative proceeding. I have witnessed an ignorant and heedless assistant resting his elbows on the chest of a patient, whose laboured respiration and livid, turgid face showed threatening asphyxia, while the administrator gazed abstractedly at a surgical procedure taking place at the groin.

I cannot too much impress the greater importance of observation and reliance on the state of the respiration, rather than of the circulation, as an index of the condition of the ethylized patient.

The patient's position should, if possible, be that of dorsal recumbency, with the head slightly elevated and flexed. It is well to remember that in the sitting or erect positions there may be more danger to very feeble patients from syncope. During muscular excitement the neck should not be allowed to be forcibly curved backward, as is the tendency, producing tension on the ante-tracheal muscles and impeding venous return. The chest and abdomen should be free from the mechanical restraint of tight clothing, so that full and deep inspiration may not be impeded. If it should be necessary to have the patient in the prone position, the administration requires watchfulness lest respiration should, by pressure, become embarrassed.

When practicable, the taking of solid food should be avoided by a patient for four hours, and liquid food for three hours, before the administration of any anæsthetic. If the patient's condition should be feeble, alcoholic stimulants or ammonia may in advance be given. When, in an emergency, anæsthesia must be induced very soon after a meal, the act of vomiting should be carefully watched, and the patient's trunk so held that ejected substances may not gravitate into the larynx.

No fatal case referrible to the action of the bromide of ethyl has occurred, nor even in the now large number of administrations, as far as I am aware, have there been any dangerous or threatening symptoms; yet, just as in what ought to be the almost invariably safe administration of sulphuric ether, death may occur, but it will, most probably, be in cases in which, if proper care had been observed, the fatal result would have been avoided. Its action does not seem insidious or uncertain; but, judging from the careless and bungling manner in which other anæsthetics are sometimes administered by incompetent persons, I think that so agreeable and unirritating an agent as the bromide of ethyl is liable to be ignorantly, heedlessly, and inordinately used, and its usual harmless and beneficent anæsthesia pushed to toxic conditions and even death.

In the minor operations of surgery, occupying but a very brief time, and of but momentary pain, it is sufficient evidence of the production of anaesthesia when the patient does not respond to a sudden call by the voice. The more profound state of anaesthesia is evinced by insensibility of the surface of the conjunctiva to the touch of the finger, and by change in the breathing of the patient to that of normal deep sleep. The occurrence during full anaesthesia of dilatation of the pupils and of general sweating, are frequent but not invariable phenomena of ethylization.

The bromide of ethyl, as most recently produced by our best chemists, differs materially in some of its sensible properties from that which has generally been described by chemical writers, and from that which I first had the opportunity of using.

Its odour is characteristic, but is less decided than that of ether or chloroform, and to most persons it is more agreeable. The article I now use leaves less evidence on the breath of the patient, is soon dissipated from the apartment, and the odour does not remain, as does that of ether, on the clothing of the operator and his assistants.

The bromide of ethyl is said to be liable to chemical change by prolonged exposure to light; but I have kept daily, for more than a month, exposed to direct sunlight, a specimen made by Wyeth & Bro., of this city, and can perceive no evidence of change in either its ordinary properties or its anaesthetic action.

The bromide of ethyl may always be used without danger, in the closest proximity to lights and to the actual cautery, as its vapour is not inflammable. If a few drops be poured into a tumbler or other deep vessel, a lighted taper or a match is at once extinguished if immersed in the vapour.

I have used the bromide of ethyl in the surgery of two large general hospitals and in private surgical practice, under the most varied circumstances which could be required to test the merits of an anaesthetic. In my use of it in the most abnormal conditions of debility and shock of injury, in capital operations, through protracted periods of administration, in patients from early infancy to extreme old age, it has always been satisfactory and free from manifestations of danger. I express my conviction that it is practically the best anaesthetic known to the profession.

DIABETES AND SEPSIS.

W. ROSER.

Diabetes often causes obscure septic processes, which require regular diet and omission of all hydrocarbons rather than disinfection with carbolic acid.

Up to the present time three prejudices have often frustrated the diagnosis: 1. The supposed incompatibility of diabetes with apparent health. 2. The fashion of believing the cause of all gangrenous ulcers to be bacteria. 3. The supposed incurability of diabetes.

Cases are related tending to refute the above objections. A patient, C. R., æt. 42, with a progressive gangrenous phlegmasia of the foot. Diabetes was found to be present; an animal diet was insisted upon with quick improvement. The sugar was greatly reduced, and finally a resection performed; the wound healed kindly, and the patient was discharged. The animal diet was continued, and the patient remained well. A number of similar cases have been observed by the writer shortly before death, in which a timely diagnosis might have saved life.

Twenty years ago, Nélaton had a case of a prominent gentleman, 60 years of age, short of stature, and plethoric, who received a small wound in the leg. Instead of healing, the wound changed to an ulcer. In spite of varied treatment, the ulceration spread. Nélaton was consulted. An amputation was proposed, but Nélaton opposed it. Suspecting diabetes, which urinalysis proved to be present, anti-diabetic treatment was commenced, but too late; the patient died.

Professor Marchal (de Calvi), in 1853, was the first to mention the fact of Diabetic Sepsis, and enumerates 133 cases. He also points out that these complications attack, by preference, robust and well-nourished persons of middle age. Peyrot, in 1878, treated of the curability of these diabetic accidents. This question has of late been often brought up at the Société de Chirurgie of Paris. German surgeons have neglected, and the English text-books are silent on this topic.

Twenty years ago the writer amputated the foot of a fat merchant, 58 years of age, for supposed senile gangrene. The patient died from progressive gangrene. Since there was no other

cause for this, he considers it a case of unrecognized diabetes. Again, a mammary cancer was extirpated, progressive phlegmasia ensued, which caused death. Dr. A. Henry mentions a similar case where death ensued from pulmonary oedema. Both were probably cases of diabetes.

Professor A. Fischer recommended carbolic acid internally, to combat the diabetes before operating, and mentions cases in support of such treatment.

Such cases force upon us the following questions: Is it permitted to operate upon a diabetic patient? Is it indicated to postpone an operation; and is it really of such importance that diabetes should be diagnosed before operating? In diabetes, cataract operations often succeed. But in most cases Verneuil disadvises operation, or insists on anti-diabetic treatment prior to operating.

Other skin affections, such as eczema, pemphigus, &c., sometimes are caused by diabetes. In the diagnosis of diabetes in surgical cases, it must be borne in mind that fasting for a few days causes the sugar to disappear from the urine. Gangrene of the lung is regarded by Rager as a frequent termination of diabetes. This form of pulmonary gangrene is not mentioned by the latest German writers, although Griesinger spoke about it in 1859. Sudden death may occur in diabetes, and embarrass the surgeon. Serious hemorrhage also occasionally occurs, at times becoming uncontrollable, and is apparently a parenchymatous oozing. A case of diabetic gangrenous phlegmasia of the leg was incised on account of emphysema. A large number of odourless air bubbles exuded. Could these have been carbonic acid, derived from the fermentation of saccharine serum in the areolar tissue?—*Chicago Medical Gazette*.

COLD-WATER PILLOW.—William Woodward, M.D., writes, in the *British Medical Journal*: "In several cases lately I have had recourse to the use of a cold-water pillow, with very marked benefit, where headache, heat of head, and similar symptoms have prevailed. Any one who has experienced the vain attempt to find any permanent cool place in a feather pillow when desired will at once appreciate the above expedient, which, however, may not occur to every one at the required time."

CUPRIC TEST PELLETS.*

BY JOS. S. NEFF, A.M., M.D.,

Lecturer on Urinary Pathology at the Jefferson Medical College, Philadelphia, etc.

At a meeting of the Clinical Society of London, held January 23rd, 1880, Dr. Pavy introduced to the notice of the profession a new qualitative test for sugar; strictly speaking, a new form of an old test, for it was nothing more than Fehling's solution transferred into a solid form; but the method of obtaining this form was not explained.

As is well known, of all the tests for sugar in the urine the copper tests are the best, at least when delicacy and precision are aimed at. The best of these are Fehling's or Pavy's solutions, which contain cupric sulphate in combination with an alkaline tartrate, and in such a condition that when brought in contact with grape sugar, at a temperature of 100° Cent. (212° Fahr.), the cupric salt is reduced to its lower oxide (cuprous oxide).

These solutions, although of well-attested value, have one great objection, viz., the change which takes place when kept for any length of time, or when light and air have access to the fluid. This change allows the cupric sulphate in solution to become deoxydized when the fluid is boiled, without necessarily the presence of sugar. Another slight objection is that the stopple of the bottle in which the solution is kept is apt to become fixed unless in constant use.

These points were given by Dr. Pavy as his reasons for undertaking the incorporation of the ingredients of the ordinary test solution into a solid and permanent form; and at last, after many fruitless attempts, his efforts have been crowned with success, as shown by the presentation of his "cupric test pellets" to the Society, as above stated.

The great practical use of these pellets at once suggested itself to me, and I endeavoured to have some made in this country, that their use might be made practicable without the great expense of importation.

In the report of Dr. Pavy's remarks,† no mention is made of any formulæ, so it is fair to

* British Medical Journal, February 7th, 1880.

† Exhibited to the Philadelphia Pathological Society, March 25th, 1880.

suppose that the doctor himself was ignorant of the processes by which he arrived at the result, stating that "his chemist surmounted all obstacles," etc. Therefore it is impossible for me to say whether the pellets to which I now call attention are made in the same manner as the English. I suggested the idea to Mr. McKelway, chemist, having first called his attention to the matter, and desired him to make the necessary experiments, in which he has been so successful; and it is, therefore, through his aid I can now present to the profession the "cupric test pellets," being not only a convenient means for detecting the presence of sugar in the urine, but also one for obtaining the exact amount; a quantitative, therefore, as well as a qualitative test.

Qualitative.—For detecting the presence of sugar proceed as follows: Place a pellet in a test tube, add a small quantity of water (better distilled), heat until perfect solution is obtained, when a clear, deep blue fluid will be the result. Then proceed in the same manner as when using Fehling's solution—for, in fact, it is now almost identical with it—add a few drops of the suspected urine, and if glucose be present, upon boiling, the cupric sulphate which is held in solution becomes deoxydized by the sugar present, and we have the cuprous or sub-oxide, which shows itself by the change in colour, first as a yellowish precipitate, due to the hydrated sub-oxide, which subsequently loses its water and becomes the red sub-oxide.

Precautions.—The same precautions are, of course, necessary here, as when using any of the copper tests.

The English pellets, up to this time, have been prepared only for qualitative analysis; we have, therefore, advanced a step in being able to determine the amount as well, as each pellet represents accurately five milligrams of grape sugar.

Quantitative.—The quantitative analysis is performed by the volumetric process in the same manner as with the ordinary copper test solutions. The only simplification by using the pellet in this form of analysis is that it does away with the necessity of measuring or weighing, which is necessary when either Pavy's or Fehling's solutions are employed.

Approximative.—With this new form of test a very accurate approximate result can be arrived at, which is practicable, simple, and requiring but a few moments for its accomplishment, and will, therefore, doubtless, meet a long-felt want to the busy practitioner, who may not have a laboratory at his disposal, or the time required for quantitative analysis by the ordinary methods.

Allow the urine to be tested to drop slowly into a large test tube, containing one cupric pellet in solution, at a boiling temperature, until the cupric sulphate is entirely deoxydized, which will be known by the disappearance of the blue colour. Now, as the amount of sugar required to accomplish this result is known, the only thing that remains is to have some means of determining the quantity of urine used. This can be done by using a graduated pipette or a minim glass.

It may be mentioned here that it is better to dilute the urine, as then the test becomes more accurate, and the precise moment when the blue tint leaves can be more readily determined.

Example.—For example, fill a pipette graduated in cubic centimetres with a solution of one part urine to nine parts distilled water. Then keeping the test solution (one pellet having been dissolved) at a boiling point, over a spirit lamp, allow the diluted urine to flow slowly into the test tube until all blue disappears, when a glance at the pipette will indicate that it has taken, for example, 10 c.c. to accomplish this—therefore 10 c.c. of diluted urine represents 5 milligrammes of diabetic or grape sugar; but as only $\frac{1}{10}$ or 1 c.c. of this solution was urine, then in 1 c.c. of urine examined there is .005 gramme of sugar. If in 1 c.c. of urine there is .005 gramme of sugar, in 1000 c.c. of urine there must be 1000 x .005 gramme, or 5. grammes. In this way, with a little calculation, the amount of sugar in any given quantity of urine can easily be determined. If a minim glass is used, it is only necessary to substitute the word minim for cubic centimetre.

By using a little precaution, keeping the pellets in a well-stoppered bottle, free from moisture, they may be kept for an indefinite time. It is better to avoid shaking them too much, as the edges may become broken and interfere with the accuracy required for quantitative analysis.

The test pellets can be procured at 1410 Chestnut Street.—*Medical and Surgical Reporter.*

QUEBRACHO IN DYSPNŒA AND DIARRHŒA.

The accounts which we get from foreign observers as to the action of quebracho continue to show that this drug is a valuable addition to the *armamentarium therapeuticum*. Berthold has published in the *Berliner Klinische Wochenschrift*, No. 52, 1879, an account of several cases of severe convulsive asthma where this remedy seemed to produce a very happy effect. In one, a gentleman of sixty-five was found in a violent attack, pulse 108, respiration 64. A teaspoonful of the tincture was given every hour, and at the end of three hours the respiration was reduced to 30, and the patient rapidly recovered without other medicine. In some fourteen other cases a similar happy result was attained, though not always with the same promptitude. In the case of a lady of sixty, suffering from mitral insufficiency, with stenosis and frequent attacks of frightful dyspnœa, where digitalis had failed, quebracho gave relief. Berthold also recommends the alcoholic extract of quebracho as an excellent remedy in diarrhœa. In the case of children, he gives the extract in the dose of $1\frac{1}{2}$ grains in pill form, to the number of ten a day. No ill effects have been observed. In the same number of the *Wochenschrift*, Dr. Picot relates some experiments made upon himself to ascertain if quebracho would prevent dyspnœa from the exertion of climbing, and found that by taking a previous dose of about a tablespoonful of Penzoll's tincture he could climb a considerable acclivity without losing his breath. He has also administered the tincture to two obese and short winded individuals, with the result of markedly diminishing the dyspnœa felt on extra exertion.—*Philadelphia Medical Times*.

TREATMENT OF NIGHT SWEATS IN PHTHISIS PULMONALIS.

A lady suffering from phthisis pulmonalis had been tormented with profuse night sweats for upwards of a year. All other means having failed to relieve this distressing symptom, Dr. Köhnhoim applied the remedy employed in the army for sweaty feet—viz., Acid Salicyl 3 parts, Amyli 10, and Talc 87—with the best results. The mixture, in fine powder, was sprinkled over the patient, and the sweating ceased. With a second patient the same result was also obtained.—*Berl. Klin. Wochenschr.*, No. 1, 1880.

A NEW THEORY OF THE ACTION OF MERCURY.—In a thesis on this subject, Dr. S. V. Clevinger (*Chicago Medical Gazette*, 1880, p. 81) regards the action of mercury upon the system as in no small part mechanical. Blue mass contains metallic mercury in a finely divided form, examinations under a low magnifying power showing not less than 200,000 globules in a gramme. Dr. Curtis has estimated the diameter of these globules at from $\frac{1}{8000}$ inch to infinitely smaller. Dr. Carpenter has asserted that metallic mercury finely divided can be absorbed by the blood-vessels from the alimentary canal. Dr. Clevinger suggests that these globules drop into the gland tubules and force out the contents of the latter, thus causing a mechanical sweeping out of the glands with consequent restoration of normal secretion. He considers the specific action of mercury upon the salivary glands and its accumulation in the jaws causing caries as explainable by mechanical laws. Mercury, according to Dr. Clevinger, is not a tonic; but if it increases secretion, removes obstructions, and sets the corpuscular manufactories in order, as it does the biliary, it induces tonicity, as the bromides induce sleep. Mercury in poisonous amounts produces ulceration, neuralgic pains, paralysis agitans, epilepsy, often melancholia. Ischæmic softening of cerebral tissues, infarctus, mania, aphasia, even hemorrhages, have, according to Dr. Clevinger, been caused by mercury, these hemorrhages having often heretofore been ascribed to syphilis. The "specific" action of mercury in syphilis cannot as yet be exactly explained. The disposition of the virus being to centralize itself upon and destroy certain areas, it seems likely that the metal may, by attacking such weakened points, not only break them down, but prevent the static degeneration necessary for the ulcerative processes. This, with the antagonism the metal has for occlusion anywhere, except what it induces itself in great doses, would suffice as a tentative view until we demonstrate exactly both the disease and its cure. Syphilis in the blood may not manifest itself if sufficient globules are chasing it from forming nuclei. Dr. Clevinger continues at some length, discussing the action of the various compounds of mercury and detailing a number of interesting experiments. The thesis, though not arranged in a perfectly clear and intelligible manner, contains much curious information.

NITRO-GLYCERIN.—Condensed from British Medical Journal: Few drugs have come more rapidly into favour than nitro-glycerin. A year or two ago nothing seemed more unlikely than that it should be used in medicine; but it now bids fair to rank high as a curative agent. It was discovered in 1847, by M. Sobrero, and its chemical properties have been fully investigated by Railton, De Vrij, De la Rue, and Muller, Mills, Dupré, Martindale, and others. It is slightly soluble in water and freely in alcohol and ether, and it has recently been found by Mr. Martindale to dissolve readily in fats and oils. It is, although slightly volatile, inodorous, and has a sweet pungent aromatic taste. It has been found that the effects of nitrite of amyl and nitro-glycerin on the pulse are similar. Both produce a marked dirotism, and both accelerate the rapidity of the heart's action. They differ, however, in the time they respectively take to produce these effects. The full action of nitro-glycerin on the pulse is not observed until from two to six minutes after the dose has been taken; while in the case of nitrite of amyl the dirotism appears in from fifteen to twenty seconds after an inhalation, but its effect is transitory, being maintained for only a very short time. The nitro-glycerin acts more slowly, but the pulse does not resume its normal character for nearly half an hour. Dr. Murrell has shown from observations on a patient, the subject of epispadias, that nitro-glycerin is a powerful diuretic. On one occasion twenty minims of the one-per-cent. solution increased the amount of urine secreted in half an hour from fourteen and a half drams to fifteen and a half ounces. This was the more remarkable as the patient was not at all susceptible to the action of the drug, and experienced none of the ordinary symptoms from the unusually large doses he had taken.

LOSS OF WEIGHT AFTER EPILEPTIC ATTACKS.

—Dr. P. Kowolewski (in *St. Petersburg Med. Woch.*, No. 47, 1879) states, that after regular daily determining the weight of the bodies of epileptics, as well during the attacks as during the intervals, the following facts were noted:

1. With all epileptics, and in all forms of

epilepsy, after every attack the weight of the body, corresponding to the duration of the disease and the intensity of the attacks, decreased.

2. In old cases, where the attacks are very frequent, and the organism has become accustomed to them, the decrease in the weight of the body after an attack is inconsiderable—from one to two pounds. In recent cases, on the contrary, in which the attacks seldom appear, the loss of weight is considerable—three to twelve pounds after each attack.

3. If several attacks follow in succession, the greatest loss of weight occurs after the first attack, and the loss is very trifling after the following attacks.

4. In all forms of motor or somatic epileptic convulsions, the greatest loss of weight occurs, viz, up to twelve pounds at a time. In the epileptical vertigo (*schwindel auffüllen*), the loss is much smaller. The greatest loss of weight is, however, observed in the epileptico-psychical cases, in which it sometimes amounts to as much as one-fourth that of the body.

The increase of the weight of the body after the attacks is very great, requiring only a few days.—*Wien. Med. Woch.*, No. 9, 1880.

THE POSITION OF THE PATIENT IN EMPYEMA.

—Dr. Churton read a paper upon this subject. From observations made upon seventeen cases of empyema, most of which had occurred during the past year at the Leeds Dispensary, and upon a number of cases of simple effusion, he had drawn the following conclusions: 1. If a patient with pleuritic effusion were unable to lie on the affected side, the fluid, as a rule, was pus. 2. The converse proposition was usually, but not always, true—namely, that if the effusion were pus, the patient could not lie on the affected side. 3. If the patient could lie on the affected side, the fluid was usually clear. Briefly, it might be stated that, generally, those affected with empyema lay (if on either) on the sound side; whilst those suffering from simple effusion lay on the affected side. If, in any case of supposed chronic pneumonia or phthisis, there existed inability to lie on the affected side, an empyema should be carefully sought for.—*British Medical Journal*.

Surgery.

THE DRY COTTON-WOOL PERMANENT DRESSING IN AMPUTATIONS.

BY ARTHUR E. J. BARKER, F.R.C.S.I.

GENTLEMEN,—The four amputation wounds which I propose to make the subject of a few remarks to-day were, as most of you have seen, dressed according to the same method. But from questions which have been put to me here and elsewhere, I am led to think that the distinct principles which I have had in view as underlying this method have not been as clearly understood as is desirable. For this reason, and because you are likely to see the dressing used in other instances, I have thought that it might be well to place before you the *rationale* of the whole proceeding, and then endeavour to see how far it has been consistently met by our practice.

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Let us now examine the mode of employing the dry cotton-wool dressing, and see how far the requirements of absolute cleanliness, adequate drainage, and complete rest, are met by it in the case of amputation wounds. But first let us consider what is meant by these terms.

By absolute cleanliness we mean the exclusion from contact with our wounded surface at any time during its treatment, not only of all palpable organic and inorganic impurities, but also of certain almost invisible minute living organisms, which we know are present in the air, and which, it is believed by many, are capable when alive of producing decomposition in the secretions of wounds. To do this, however, it is necessary, in the first place, that they should reach the wound in a living, active condition, and further, find in the latter a fluid of a certain character and density in which they can propagate largely. It has been shown, for instance, by Professor Nägeli that one of the most, if not the most, dangerous of all these organisms is quite unable to exist long or to propagate in a moderately concentrated organic fluid, in which they will develop and swarm if it be a little diluted. Possibly it is for this reason, as has been pointed out, that where an open wound is only secreting enough lymph to glue its sur-

faces together, we never find fætor and decomposition; whereas if the same kind of wound were effusing even serum which was retained about it, it would be fætid and swarm with bacteria. Where the latter fell upon viscid organizable lymph, they had not moisture enough to support life; while this would be supplied by the serum. This is the explanation of a believer in the germ-theory of decomposition in wounds, and harmonizes with some of Mr. Lister's observations. On this reasoning, if we could obtain a perfectly dry dressing and a moderately dry wound, whose secretions should remain above a certain density throughout, the presence or absence of noxious germs would be a matter of indifference, for in such a case they would not be able to propagate. But such conditions could only be very exceptionally met with, and hardly ever in amputations, though they are known.

But the next best thing to this would be a dressing which should absorb all secretions from the wound, without contributing from its own meshes the supposed hurtful germs. This is aimed at in Mr. Lister's method; with what results we need not discuss here. We must remember, however, that it has been shown by his adherents that certain species of germs may be present in large numbers in wounds under his dressings, without producing any septic effect. We aim, however, at the exclusion of all germs, good, bad, or indifferent, whatever be their relation to sepsis. They come under the definition of dirt once given, and as such we ought to abhor them. Dirt, namely, has been defined as "nothing but misplaced matter;" and we suppose that the whole "coccus" family are misplaced in wounds, and shall not be in error if we endeavour to exclude them.

Next, what do we mean by adequate drainage? You should be aware that, roundly stated, there are three tolerably distinct species of fluid for which it may be necessary to provide a free escape in amputation wounds. Shortly after the operation, we may have blood from small vessels, or parenchymatous oozing. Later, when reaction sets in, there may be abundant serous oozing, and, later still, true pus. All this may be perfectly aseptic, and yet produce much fever, etc., by the tension which they

cause in the wound. This tension is apparently but one form of physiological unrest, the pent-up fluid causing stretching and pressure on the injured nerve-filaments in the wound, and consequent vaso-motor disturbance, resulting in rise of temperature. But these fluids, on the other hand, may have decomposed, and may then produce septic fever, from absorption, it is supposed, of the noxious matters so generated, into the blood.

Now, to avoid both these sources of danger, we must provide some way for the free escape of these fluids, whether by drain-tube, strip of lint, gutta-percha, or other substance interposed between the lips of the wound. But we must beware, in placing a foreign body in the latter for the sake of carrying off its secretions, that this body be not present in such amount, in such a way, or for such a time, as itself to produce undue irritation. For it would thus, as I said before, defeat its own object, and provoke discharge. This is a point we are all constantly liable to forget, and do forget frequently, in the use of the ordinary drain-tube. It is often made unnecessarily large, and left in too long. Again, drainage should not be taken to mean merely conveying the secretions out of the wound, but also as far as possible away from the latter, so as to keep it in as dry a condition as may be for the reasons given. Remember always that dry organic substances are less liable to rapid decomposition than moist under similar conditions.

Turning now to the question of rest, we must bear in mind that the term as applied to wounds should have its fullest physiological signification. It should not be merely regarded as the absence of movement of the limb during and after the operation. A wounded part may probably be kept in a state of unrest quite as much by the continuous contact with it of an irritant fluid, whether applied as a dressing or accumulating in its own tissues, by a clumsy or misplaced drainage-tube, or by an unevenly applied bandage, as by being moved about or roughly handled, and the consequent constitutional disturbance may be equal or even greater. If, during the operation, the wound be wiped over with any particularly stimulating solution, be it of alcohol, carbolic acid, or anything else, a

very real irritation of the exposed nerve-filaments and tissues is induced, and we violate one of the first laws of physiological rest. Cleansing solutions, then, should be as weak as possible compatibly with the preservation of their special properties. But how much greater is the irritation when we sponge and scrub the face of a wound with strong solutions and with unnecessary zeal, as many are often forgetful enough to do, myself amongst the number. Such treatment is usually followed by copious reactionary outpouring of serum. Some wounds, it is true, have to be energetically excited to promote a decided reaction for special purposes, but not those of amputation, where we mostly have fresh clean-cut tissues. In arresting the primary hæmorrhage, then, and in cleansing, stitching, and placing a drainage-tube in the wound, we should aim at doing only as much to the raw surface as is absolutely necessary, and no more; and our cleansing solutions should not be too strong or used too long. In applying, also, our first dressing, we should use as much care as if it were going to be left on for weeks. And, if it could be left on for weeks, it would be so much the better. The wound thus at rest would be inclined to pour out only as much plastic material as would be necessary for union and could be rapidly organized, and would not be excited over and over again at each dressing to give out more fluid material in the shape of serum or pus. And supposing that we regard bacteria as hurtful, a wound comparatively dry from lack of excitement would offer a very unfavourable soil for their propagation, even if they had access to it. Suppose, then, two dressings perfectly pure in the first instance, that one would manifestly be best for the wound which could be left on longest. This, too, we are often liable to forget in our anxiety to see how all is going on about the part operated on. To the patients, also, it is in many cases of almost incalculable importance that they should be spared not only the pain of disturbing the dressing, but, often far more, the mental distress they go through at such a time. Pain and anxiety are two powerful depressants of vital force; and it may make the difference of life or death to a feeble individual exhausted by disease, whether he have an extra twenty-four

hours of rest from disturbance of his wound, and the pain and emotional disturbance consequent thereon. How much better, then, is his state when he can be left entirely alone for days and weeks. Unfortunately, this is often impossible or undesirable with the present modes of drainage. Though it is no longer necessary to meddle with wounds in order to pull away ligatures (thanks to Mr. Lister's invaluable invention of the absorbable catgut—a very great step in the direction of rest), still there is the drainage-tube in the wound as a foreign body. For this reason, we are obliged to take down any dressing which includes it, in order to shorten or remove it altogether, no matter whether the dressing itself could be left on otherwise or not. Could this be avoided, it would be most desirable. And it appears possible that it may be so in the future. In a recent number of *Langenbeck's Archiv*, there is a very interesting article by a Dr. Neuber, on the use of soluble drainage-tubes. In this, he relates his experience with such tubes in a number of cases. They were made of decalcified bone, which he had found by experiment to be the best material for the purpose. Using these, he was able to leave a Lister's dressing, with some extra packing of salicylated wool, undisturbed for fifteen days, when the tube was found to have been absorbed, and its track healed. Now, if these absorbable drainage-pipes can be combined with the catgut ligature and suture, we may perhaps be able hereafter with care to put up an amputation wound once for all in a pure, dry, absorbent material, and leave it so until it is completely healed before removing the first application. This, if achieved, would go near to realize our ideal dressing, combining cleanliness, adequate drainage, and complete rest.

Let us glance now at the dry cotton-wool permanent dressing as a method of wound-treatment, and see how much of these three factors it contains. We have all been familiar, no doubt, for many years, with the use of this material for injuries of various kinds, and have seen it of benefit. But one of the first to employ it as a permanent dressing to be left on for weeks was M. Alphonse Guérin, of Paris. And remember, please, that it is not the material employed, so much as the fact of his venturing

to leave it so long undisturbed round a wound, that was the novel feature of his practice which has attracted much attention. I gather from reading, and from a conversation with himself, about a year and a half ago, that, as carried out by him, this method simply consisted in wrapping a very large quantity of ordinary cotton-wool round the wound, which had not been cleaned in any particular way. This was then bandaged tightly around the part, and so formed an elastic, even-pressing, and somewhat absorbent covering, which he left undisturbed for weeks, or until the part was healed, or nearly so. This certainly secured rest, but no particular provision was made for cleanliness at starting, nor, so far as I know, for drainage.

Not long after M. Guérin's visit, Mr. Erichsen suggested to me to give this plan a trial in the hospital. He had, I believe, done so himself in private, and had formed a favourable opinion of it. I did so, as you know, in an amputation of the leg, and had such a satisfactory result that I have employed it since in two amputations of the thigh, and one of the breast. As this is the only systematic test of the method that I know of in a hospital in this country, it appears worth while to take a few notes of the results. These you have been able to watch for yourselves, so I may be brief, and avoid too much detail. But I have essentially modified M. Guérin's method in these cases, feeling bound to do so, and as follows. Knowing what cotton-wool often is in hospital, where it is left about here and there—namely, a trap for dust and dirt—I have had all that employed here baked at a dry heat of 300° to 400° Fahr. This, you know, would render all organic matter in it innocuous, and certainly destroy all germs. Now, pure dry cotton-wool is well known to be a perfect shield against the access of dust and germs to substances covered by it. I need not allude to the familiar experiments which go to prove this, and that air is completely filtered of all decomposition-exciting impurities (whatever they may be) by passing through it. If this be true, a wound perfectly clean in the first instance, carefully enveloped in perfectly clean cotton-wool in sufficient amount to absorb its discharge, ought to remain quite free from contamination from without until the dressing is

removed. The wool, so cleansed, was laid out just before the operation on a towel, to the depth of about six inches, and thus ready to be slipped without loss of time under the stump, and lapped over the end and along its upper surface as soon as the sutures were completed. It was broad enough to envelop the limb, and was firmly bound round the latter with a bandage for a long distance up. Now, what measures had we taken that the wound itself should have been put up within the wool in a really clean state? First, the hands of all participating in the operation were well washed in a five per cent. carbolic acid solution, about the properties of which I must assume we are all agreed. The whole limb both above and below the seat of operation was similarly treated, as also all instruments and appliances used during the latter. When this was completed in the usual manner, and the vessels secured with carbolyzed catgut, the Esmarch's bandage was removed. The wound was then sponged with iced carbolic solution, perhaps, I since think, with unnecessary energy on my part. After this, I wiped it over in the three first cases with five per cent. of carbolic oil before stitching it with antiseptic silk, and inserting an ordinary drain-tube. A strip of lint about as broad as the limb, dipped in the same oil, was then laid along the under surface of the stump, over its end and along its upper surface. Over this, the wool was now quickly folded as described.

These precautions ought to have secured a clean wound. As the spray was not used, the carbolic oil was employed as described. It was thought that it would adhere to the raw surfaces and flaps longer than the watery solution, and so render harmless any dust or invisible dirt which might fall upon them before they were enveloped in the wool. Should the same have fallen on the latter during our manipulations, the oiled lint would meet it, and render it innocuous for the wound. The dressing so applied was left undisturbed as long as possible. By this, I mean until either the thermometer indicated undue fever, whether from possible tension or toxic absorption, or the dressings began to give off an unpleasant odour.

Now, as to the three questions of cleanliness,

drainage, and rest, what does our experience seem to teach us here?

Generalizing on these four cases, the first point that strikes us is the large amount of complete rest secured to the wound and to the patient; a far larger, I must admit, and more perfect than I have ever attained by any other method. In Case 1, an amputation of the leg for sarcoma of the foot, the patient, a woman, aged 21, enjoyed the most perfect rest for ten days, until the first change of dressing; then for seven more, when the second dressing was applied, after which she was practically well, the wound having healed almost straight off, except where the drainage-tubes lay. In Case 2, an amputation of the thigh for disease of knee in a man aged 26, we had perfect rest for four days, then for two, when he had the only distress complained of. On the fifteenth day, after a few more dressings, he was up by the fire (the wound being almost healed), and was about on crutches a couple of days later. In Case 3, a patient aged 45 (amputation of breast for cystic disease), we had perfect rest for six days; then change of dressing, and again at intervals of four or five days, until an early cure. In Case 4, a patient aged 55 (an amputation above the condyles of the femur), we had complete ease from the date of operation until the end of the case. The dressings were only removed on the tenth, sixteenth, and twenty-third days. Now, except in Case 2, the patients were, from the beginning to the end, almost absolutely free from pain. And that the wounds were at rest was seen in the absence of almost every trace of reaction and of contraction in the flaps (which was peculiarly striking), and in the small amount of secretion found in the dressings; also by the temperature-chart. We had, then, freedom from pain, except in Case 2, before the second dressing. This pain was in his phthisical chest, however, and not in the wound. We had no tension from lack of drainage, as indicated by this absence of unpleasant sensations in the part and of marked temperature-disturbance. But, quite as important as this, the patients were spared, at the most critical time of the case, all the dread and worry of having the dressings changed and the wounded part handled. They lay quietly as

first placed, with a soft, elastic, warm, and evenly pressing material round the whole limb; remember, for ten days in two cases, and for six and three in the others. The second interval of rest, too, lasted for seven and six days respectively in the first and last cases.

Our experience, then, in these instances would seem to show that, as regards the securing of mental rest for the patient and physiological rest for the wounded part, this mode of dressing has shown itself admirable. To my mind, I must admit that in this respect it goes far beyond the old method of simply laying the stump, covered with oiled lint, on a pillow. For here we have all this, and in addition firm elastic support to the muscles all the way above the wound; a support no less grateful to the patient, as diminishing the tendency to spasm, than important to the flaps as combating their retraction. I cannot but think, too, that the absence of all variations of temperature about the wound must be of considerable importance. This the permanent dressing of dry cotton-wool prevented, by its bad conducting properties. Changes of temperature, particularly in a wound, mean disturbance of the equilibrium of the nerve-forces of the part, and consequently disturbance in its nutrition, the very thing we are doing our utmost to avoid.

In two of these cases I should have left the first dressings on much longer if it had not been incumbent upon us to remove the drainage-tubes and stitches. But these had done their work, and at the end of ten days, or even earlier, were only irritant foreign bodies.

This leads me to speak of drainage. That this was adequate, was indicated by the absence of unpleasant sensations on the part of the patient and of marked rise of temperature. Had there been tension of serum, blood, or pus to any noteworthy degree, both of these factors would have been present. Moreover, the secretions were fairly distributed through the wool around the wound, and had to a large extent dried up; so that, at the end of ten days, we found only a very small quantity, perhaps a couple of ounces of viscid pus, about the line of the wound.

We come now to the question of cleanliness, and how far its requirements were met

in these cases. You have seen that, in applying the dressing, we went a long way in this direction. Now, during the ten days which elapsed before their removal in Cases 1 and 4, and six days in Case 3, what evidence had we that all was clean around the wound? First, there was the temperature chart to guide us. You will see by it that in all cases we had a rise towards the second day, and then a fall again. This ascent probably corresponded to reaction after the shock of the operation. It may have been due to the accumulation of a little serum within the flaps. At all events it was slight, and, moreover, transient. In Case 4, this was hardly present at all, but was followed on the fourth day by a rise to 101.4° , for an hour or two, after which the temperature gradually fell to normal, and remained nearly so until the end of the case. In Case 1 it slowly rose until, on the tenth day, we had 102.6° , after which it fell, and remained at nearly normal throughout. In the other two cases, I am not sure that the rise on the sixth and seventh days was not due to other causes than the wound. You must remember that in Case 2 we had well-marked evidences of phthisis, with spitting of blood. But in none of the cases had we a persistently high temperature, or one that called, in my opinion, for removal of the dressings. Next, we had no unpleasant sensations on the part of the patient to indicate tension, etc., in Cases 1 and 4. In Case 3 we had a slight sense of contraction about the wound, from the description like what would be caused by the drying of the blood on the dressings. This was on the fifth day. Another indication as to the cleanliness of the first dressing during the long interval before its removal, we gain from our sense of smell. Now, in Case 1 there was no odour at all from the wool during the first ten days; in Case 2 a faint sickly odour like dry blood was, I think, perceptible on the eighth day. But you may remember what difficulty some of you had in determining whether there was or not. On this day, when I was not present, Mr. Banks tells me that there was a great difference of opinion on the point among the class going round with Mr. Heath, but that the greater number were inclined to follow Mr. Heath, who was kind enough to

test the dressing as to this point at the time, and who took the view that there was no smell. On the tenth day, however, it was plain, but very faint. In Case 3 the dressings had no smell of decomposition from beginning to end. In Case 2 they gave off a very marked odour almost from the beginning to the end. In Cases 1 and 4 the second dressings had a slight odour a day or two before their removal, seven and six days after they had been applied.

Now as to the state of the dressings on their first removal, after ten days in 1 and 4, six and three days in the other cases. In Case 3, as has been stated, there was no odour from the start to the end. In all the others there was a pungent smell, like high game, in the small quantity of pus which lay about the wound. There was no question about this smell, it was very bad; but if we are to judge by the appearance of the flaps, and the patient's general condition as to temperature, etc., the decomposition which it indicated was apparently doing no harm.

Now as to the pus present in the dressings: this was found in remarkably small quantity, considering the time it had to form. This was probably due in the first instance to the absence of irritation; in the next, to evaporation of its watery constituents through the wool. What was found was thick and viscid, certainly for the greater part much too concentrated to form a good soil for bacteria. As to the latter, they were present on all occasions in numbers, but apparently not very active. Mr. Silcock, to whom I am indebted for a more careful examination of the pus in regard to this point than I was able to make myself, tells me that there were no rod bacteria, but only micrococci present. Whether this has a bearing on the question of cleanliness, I think we must leave to further study of the whole matter. It is, however, so far interesting. On the removal of subsequent dressings, a similar pus and odour was present.

No one, then, who saw the removal of these dressings would have said that the highest ideal of cleanliness had been reached—that is, if much stress is to be placed on the smell emitted. We must be careful, however, I think, not to lay too much stress on this smell, undesirable though it be. It is just possible that there may

be some odours indicating danger, and others not; just as there are apparently harmless as well as harmful organisms to be found in the pus of wounds. At all events, the pus around and in contact with the wound was in a very desirable condition. Better than all, in conclusion, the patients had an uninterrupted, rapid, and good recovery in all cases.

We have now examined some of the principles upon which we have used this dressing. It has been an interesting experiment, and one from which I myself must say I have learned much; and chiefly the great value of prolonged rest; and that, in our struggle for cleanliness, we may needlessly go too far towards the production of unrest. Also that a wound put up carefully in a very clean condition, may be so left much longer than we usually think.

Further trial may teach us still more. If then we find the dressing wanting on the whole, let us by all means reject it without more ado. In the meantime, let us give some further study to its bad and good points in a fair, liberal, and candid spirit of inquiry.—*British Medical Journal*.

DISLOCATION OF THE WRIST.

BY FRANCIS G. HAMILTON, M.R.C.S.ENG.,

Assistant Surgeon to the Central London Throat and Ear Hospital.

A case of dislocation of the wrist having been reported in the *Journal* for March 13th, by Mr. R. Anderson, induces me to send the following notes of a similar case. At the time when it occurred I was Senior House-Surgeon to the Royal Free Hospital, and the notes are reproduced from those then taken.

W. M., aged between 14 or 15, was brought to the Royal Free Hospital on August 12th, 1876, at 6. p. m. The boy, when playing on a railway viaduct, had been chased by an official of the line, and had fallen from the viaduct, a distance of sixteen feet, striking his left side, and doubling his left wrist under him. On examination a distinct semicircular projection was visible on the extensor aspect of the left fore-arm, about an inch and a half above the normal position of the wrist-joint, the convexity pointing upwards. There was another similar projection on the flexor aspect, in the normal

position of the wrist-joint, with the concavity downwards. The fingers were semiflexed and flaccid. Both styloid processes could be plainly felt, immovable, and in the right position, as proved by comparing the two fore-arms, and by following down the subcutaneous lines of the ulna and radius. The convexity of the carpal articular surface and the concavity of the radio-ulnar could be distinctly felt, the hand itself being slightly drawn to the ulnar side. The diagnosis of dislocation of the carpus on to the extensor surface of the fore-arm was indubitable.

Reduction was effected without any difficulty by simple extension; it was sudden, and the deformity was at once removed, and did not return in any degree when extension was removed, and the movements of the joint could be then all elicited with but slight pain. The hand and fore-arm were placed on a straight splint, reaching from the elbow to the metacarpophalangeal joints on the flexor surface.

Twelve days later the splint was removed, and the joint was found rather abnormally lax, and slightly swollen over the flexor tendons. The patient could supinate and pronate the fore-arm freely, and could also lift a light chair with the affected hand without pain. He said that since the reduction he had experienced no pain, and he had slept well.

A similar case of dislocation of the wrist backwards was reported by Mr. Alder Smith, in the *Journal* for June 24th, 1876.

Mr. Holmes states, in his *Surgery*, that "dislocation of the wrist occurs almost always backwards," and that "dislocation in the other direction (*i.e.*, with the hand in front of the fore-arm) hardly ever occurs as a traumatic lesion." There is, however, a good illustration of a traumatic forward dislocation in Erichsen's *Surgery*, taken from a cast of a case of Mr. Cadge, of Norwich.

Dr. Frank H. Hamilton, in his classical work on *Fractures and Dislocations*, relates a case of backward dislocation which he himself saw in an old man aged 75. He also quotes another case, that of a lad about thirteen years old, who dislocated both wrists by being thrown from a horse, one wrist being dislocated backwards, and the other forwards.

The accident certainly but very seldom comes

under the observation of surgeons; but Hamilton states, on the authority of Professor F. L. Parker, of South Carolina, that there are thirty-three cases of wrist dislocation on record, and of this number only ten were forwards, and the remaining twenty-three backwards; but he declares that only five of the backward, and two of the forward dislocations are free from all objection. The cases reported by Mr. Alder Smith, Mr. R. Anderson, and myself agree in the following particulars. The patients were all aged about fifteen years, the diagnosis and the reductions were very easy, and the dislocations were all the result of great violence.—*British Medical Journal*.

DISCHARGE OF PISTOL AGAINST EPIGASTRIC REGION.—PASSAGE OF THE BALL *per anum* ON THE FOURTH DAY.

From *La Correspondencia Médica* we extract the following case published by D. Félix V. Cors: A boy of 16 years, while cleaning a double-barrelled pistol (of Lefancheux's system), held the mouth of one of the barrels against the stomachal region, and had the misfortune to discharge it. Seen a few minutes later, he presented in the epigastric region and a little to the left an irregularly circular wound about 12 millimetres ($\frac{1}{2}$ inch) in diameter, with flaccid edges, blackened and slightly inverted in an oblique direction downwards and to the left, probably that taken by the projectile. Exploration promptly showed that the skin and gastric mucous membrane had been traversed, and the complete absence of any wound of exit, taken in conjunction with the vomiting and pains the patient presented, caused the presence of the projectile in the fundus of the stomach to be suspected. On the night of the third day pains appeared in the middle and lower part of the belly, with desire to defecate. On the following morning three bloody motions were passed, and with the second a leaden ball of conical form, of 12 millimetres, and corresponding to the cartridge-shell which remained in the pistol after the discharge. The epigastric wound soon cicatrized, without giving rise to a fistula or ulterior digestive disturbance, and without, during its course, any resentment on the part of the peritoneum of the lesion it had received.—*Rev. Med. y Cirugía Pract.*, Madrid.

STRANGULATED INGUINAL HERNIA SIMULATED BY BLOOD IN THE SCROTUM.

BY JOHN C. UITHOFF, M.D. LOND.

The following case is one of great interest, chiefly from a practical point of view, though its exceptional nature would also make it worthy of record. E. M., aged about 60, a bath-chair man, was apparently in good health on the evening of November 21st, 1879. His previous history I had been unable to obtain; but it scarcely has much influence on the immediate interest of the case. During the night, he was seized with severe pain in the abdomen and down the left leg. Mr. E. J. Furner was called to see him, and found him suffering intense pain. His agony was so great that he was writhing about in bed, and could not be kept quiet. Mr. Furner found, on examination, what appeared to be a strangulated scrotal hernia on the left side; that is to say, there was a sausage-shaped tumor in the scrotum, coming through the external abdominal ring, which was tense and gave no impulse on coughing, and which had appeared suddenly, the man having before been accustomed to have a reducible scrotal hernia on this side. He also had a reducible hernia on the right side. The abdominal pain, too, corresponded with a sudden and severe strangulation of the gut, although that down the leg could hardly be explained in the same way. Mr. Furner advised that the patient should be at once removed to the Sussex County Hospital, in view of an operation being performed as soon as possible. This was not done until the morning, when, in the cab on his way to the hospital, he died. Shortly before his death, the patient expressed himself as feeling better, and he had less pain.

POST MORTEM EXAMINATION. — He was a strongly developed and well-nourished man. There was extreme pallor of all parts of the surface of the body. In the left scrotum was a sausage-shaped tumour exactly resembling a hernia, and irreducible. On dividing the structures superficial to this tumour, it was found to be a cylindrical clot of blood lying behind what appeared to be the sac of the reducible hernia from which he had suffered. On following up

this clot through the abdominal ring, it was found to be a portion of an immense collection of blood, which, lying behind the peritoneum, occupied almost the whole of the back of the abdominal cavity, enveloped both kidneys, extended into the meso-rectum, meso-colon, and mesentery, and could not have consisted of less than two or three quarts. The psoas magnus muscle of the left side was quite destroyed; and running through the clot, so as to cause great difficulty in removing it, were the cords of the lumbar nerves. The source of this extensive hæmorrhage was the rupture of a fusiform aneurism of the left common iliac artery. In consequence of the presence of an old-standing inguinal hernia, the left inguinal canal had nearly disappeared, leaving an almost direct passage through the abdominal wall opposite the external ring; through this the blood had passed into the scrotum, but beneath the peritoneum, instead of within its cavity, as the hernia would have been. The left ventricle of the heart was contracted; the aorta was atheromatous; and the kidneys were granular and cystic.—*British Medical Journal*.

TOPICAL USES OF ERGOTINE.

Eldridge has made use of this drug in rosacea, granular urethritis, gonorrhœa, and otitis media. In a case of typical rosacea in a young woman, ergotine was applied on strips of lint at night. Within three weeks good effects were apparent. The general hyperæmia was considerably lessened, many of the enlarged vessels had entirely disappeared, and pustules were of rare occurrence. At the expiration of six months the disease had entirely disappeared. In another case of hypertrophic rosacea of ten years' standing, the hypodermic use of ergotine was tried. Injections of two or three minims of the following preparation were made into the substance of the skin, at intervals of three days, viz.: Ergotine, gr. xv; glycerine, 3ss; water, ʒii, to be thoroughly triturated and strained. The result was eminently satisfactory. In two cases of granular urethritis, the results of the ergotine treatment were very gratifying. In the first case, after an Otis' operation for stricture, the gleet discharge persisting, an endo-

scopic examination showed the bulbar urethra for nearly two inches to be lined with large, flabby, and tender granulations. Bonjean's ergotine was applied pure, by means of an ointment syringe, after evacuation of the bladder and thorough irrigation of the canal by warm water. Six applications on alternate days effected a cure, the gleet entirely disappearing, and no trace of granulation being visible by the endoscope. The second case had a history of two years' severe and constant muco-purulent discharge following gonorrhœa, with occasional slight hemorrhages; patches of granulation were distributed throughout the whole spongy urethra. Daily applications were made for a fortnight before the discharge ceased, and ten more days were required to remove the granulations. A useful instrument for the local application of the ergotine may be extemporized, by mounting upon a small, flexible bougie, a foot of circular, closely woven, hollow lamp-wick, of a diameter equal to a number 12 English bougie. The small bougie is passed into the centre of the wick, the lower end of the latter having been securely tied. The patient should smear this swab thoroughly with ergotine, rubbing it well into the fibre; then, after urination, and irrigation of the urethra, pass the instrument to the needful depth, there to be retained for half an hour. Ergotine, diluted with glycerine, was applied by means of a camel's hair brush, to an old case of otitis media, with encouraging results.—*New York Medical Journal*, October, 1879.

LIPOMATOUS DIATHESIS.

D. Pedro Angel Osuna narrates in *La Andaluía Médica* a case of what Follin called the lipomatous diathesis. It occurred in a woman fifty years of age, of good constitution, and without morbid antecedents, who had twenty-two lipomata on the left arm, nineteen on the right, seventeen on the left thigh, thirty-five on the right, and two on the belly. Among these 95 lipomata, the sizes varied from that of a walnut, the smallest, up to that of a foetal head, the largest. Senor Osuna, not having found in the authorities any satisfactory explanation of

cases analogous to the present one, and relying upon a physiological study of the combustion of fat in the organism, supposes that, given a faulty relation between growth and waste, a want of oxygen for oxidation purposes, or a diminution of alkaline carbonates in the blood plasma, fat will accumulate in certain situations affecting the form of tumour. This explanation is not accepted for the solitary lipomata which follow contusions, and which he believes to be formed at the expense of a fatty transformation of the red globules of the blood driven from the vessels by the traumatism, and which serves as a nucleus for the formation of the lipoma. Resting on these pathological considerations, he enunciates a treatment of lipoma which consists in subcutaneous sections and massage (kneading) of the tumour, proposed by Bonnet (of Lyons), accompanied by injections of pancreatic juice, which by its emulsionizing action favours the resorption of the fat of the neoplasm.—*Rev. de Med. y Cirugía Pract.*, Madrid.

FALL OF SEVENTY FEET—RECOVERY.—Dr. Stephen Kartulis, House Surgeon to the Greek Hospital in Alexandria, reports in the *London Lancet* for 27th March, the case of a boy seven years old, who fell from the top of one of the highest houses in Alexandria, a distance of 71 feet 3 inches, and sustained a compound fracture of both bones of the leg, and a fracture of the femur. The boy retained consciousness, but delirium and convulsions occurred in the subsequent history of the case. He ultimately made a good recovery, with half an inch shortening of the leg.

In the *British Medical Journal* for 27th March, Mr. Pugin Thornton recommends the use of the following solution in the treatment of Ozæna:

R. Sodæ Carbonatis.
Sodæ Biboratis āā.....3ij.
Liq. Sodæ Chlorinatæ.....3ss—3ij.
Glycerini.....3i.
Aq: ad3vi.

It is applied cold by means of a hand-ball spray apparatus.

Midwifery.

CANCER OF THE UTERUS — TREATMENT BY A NEW METHOD.

In the impression of the London *Lancet* for the 27th of March, Professor John Clay, of Birmingham, gives an account of a year's experience of a new treatment of cancer of the female generative organs, recently adopted by him. He gives the detailed history of four cases so treated, and refers to several others, all attended by the same result, viz., the almost immediate cessation of the pain, and the gradual melting down of the neoplastic material, with development of cicatricial tissue in its place. The general symptoms are all promptly benefited by the treatment, while the local discharge was at first very much increased, and altered to a dirty white, tenacious, ropelike secretion, which gradually became thinner and more serous, and ultimately disappeared. The form of prescription recommended by Professor Clay is as follows: Chian Turpentine, six grains; Flowers of Sulphur, four grains, to be made into two pills, to be taken every 4 hours; or, Solution of Chian Turpentine [one ounce of the turpentine dissolved in two ounces of pure sulphuric ether (anæsthetic)], half an ounce; solution of Tragacanth, four ounces; Syrup, one ounce; Flowers of Sulphur, forty grains; water to sixteen ounces: one ounce three times daily. The maximum dose of Chian Turpentine which can be safely and continuously given he has found to be 25 grains daily. The remedy must be long continued, but Professor Clay finds it advisable to discontinue its administration for a few days after 10 or 12 weeks' constant use, and to resume it as before. To test its efficacy, the drug was tried alone, without local treatment, with the above results; but Professor Clay speaks highly of the use of a lotion containing six grains of white arsenic to the pint of water, used daily as a detergent and disinfectant. The remedy has also been successfully employed by him in cancers of the stomach, vulva, and abdomen. During its use he prescribes no opiate or anodyne. Even if the astonishing relief of pain were the only use of the remedy, it must be admitted that its discovery is a long stride forward in the treatment of this terrible affection. The difficulty of obtaining Chian turpentine renders sophistication much to be feared.

Hospital Reports.

TWO CASES OF MALIGNANT DISEASE OF THE STOMACH, OCCURRING IN THE WARDS OF THE HAMILTON CITY HOSPITAL.

BY T. W. MILLS, M.A., M.D., RES. PHYS.

Read before the Hamilton Medico-Chirurgical Society.

GENTLEMEN,—I beg to bring before your notice this evening two cases of cancerous disease of internal organs, occurring in the wards of the Hamilton City Hospital.

CASE 1ST.

A. B., æt. 56—a man of large frame, but much emaciated—a labourer, was admitted on March 3, 1879, hoping to get cured of "the ague," which he stated no remedy had been able, up to the present, effectually to banish. His own account of his case was to the effect that since last June he had had intermittent fever; sometimes suffering from a chill twice in the one day; no paroxysm for the past two weeks. He makes especial complaint of his appetite and digestion; after eating there is pain in the epigastrium, and he experiences a sensation "as if there was a lump of something rolling there." He also belches up flatus after each meal. The bowels have, as a rule, been alternately constipated and relaxed. He has tried several prescriptions, but none of them seem to have had much effect in remedying the dyspepsia, which latter, with all his other ills, he attributes to ague. He admits having partaken of alcohol freely during his lifetime, but never had any form of venereal disease. His general health has always, till of late, been excellent. The patient's aspect is almost ashen, and this combined with the emaciation gives the man a ghastly look, which strikes any visitor the moment he enters the ward. Tongue pale and furred; tenderness in epigastrium and right hypochondrium on the slightest pressure; bowels confined; appetite weak and capricious; lungs healthy; heart perhaps somewhat enlarged; splenic dulness measures 5 to 6 inches vertically; hepatic dulness extends a little beyond the ribs.

The case came under Dr. Woolverton's care; and treatment was directed to relieving the dyspeptic symptoms and improving, if possible,

the anæmic condition which was present to so marked a degree. Accordingly, on the day of admission he was ordered mustard over the epigastrium, and given a purgative at bed-time.

March 4th. Patient last night had a chill; bowels moved moderately by the purgative. Pil. Cath. Co. iij.

March 6th. Ordered, three times a day after meals, Liq. Arsenical. miv., and Cinchonidiæ Sulph. gr. i. (dissolved.)

March 12th. To relieve the flatulence ordered to have Tr. Capsici miv. added to each dose of his arsenical mixture. To take in powder—a mixture of Sodæ Bicarb. and Pulv. Rhæi. for the acidity of stomach.

March 14th. Vomited copiously this morning; staggers from weakness when he walks.

March 15th. To take only toast, rice and milk as his diet.

March 21st. To stop arsenical mixture, and take one containing Ammon. Mur. Liq. Strychn. and Tr. Cinchonæ Co.

March 23rd. Had last night a severe chill; bowels now much relaxed, especially at night. Given to-day Cinchonidiæ Sulph. grs. viij. and pills of Lead and Opium, to control the diarrhœa.

April 7th. Diarrhœa has been very troublesome. Yields better to Pulv. Ipecac. Co. than to the pills of Lead and Opium. The stools are liquid and very fœtid; seem to contain considerable bile.

April 8th. To take a mixture containing Pepsin and dilute Muriatic Acid with Mucilage of Gum Acacia, after each meal.

April 12th. The last mixture to be stopped, as it does not seem to have the slightest good effect.

April 14th. Stomach getting more and more irritable; various remedies for vomiting tried to no purpose. Ordered to have milk and beef-tea (only), in very small quantities at a time. The exhausting diarrhœa continues. His spirits were very much depressed from the first, but now the sadness of mind is deepening and persistent; was ordered whiskey, 3 oz. per diem. To add to his other troubles, a most obstinate hiccup is subtracting its quota of his little remaining strength.

April 17th. To-day the patient is hilarious.

"Oh, man, there is nothing so good for a man, I do believe, as a little good whiskey."

April 19th. Seems to have improved a little; the diarrhœa somewhat under control, by the use of Pulv. Ipecac. Co., in ten-grain powders, repeated every three hours. Appetite a little improved.

May 3rd. Appetite again falling off.

May 4th. Seems to be declining rapidly; temperature subnormal.

May 5th. Very weak this morning; about noon quietly dropped off—dead.

The *necroscopy* was held seven hours after death. Extract from the records made at the time:

Heart—L. V. hypertrophied; walls measure at thickest part an inch.

Kidneys—Weight 4 oz. each; cortical substance deficient; firm bands of whitish tissue extend around the pyramids; general consistence of organ increased.

Liver, Stomach, and Pancreas removed together, a double ligature having been placed around the cardiac and pyloric junctions of the stomach; total weight of these organs 5 pounds.

Liver—Somewhat contracted; surface covered with nodules of various sizes, of a yellowish colour; some indented by cicatricial contraction, others appearing as simple elevations on the surface. These, when cut into, present a circular and somewhat radiated appearance.

Pancreas—The head seems to be somewhat involved in the new formation.

Stomach—Pyloric end and first part of duodenum (2 inches) involved in a firm, puckered growth, which, on the innermost (mucous) aspect presents a softened condition, representing the various stages of degeneration of cancer. Only moderate stenosis of pylorus.

CASE 2ND.

J. M., æt. 57, labourer, was admitted in a very feeble condition, with cough, emaciation, pallor, and general weakness as his most marked symptoms.

It must be remarked at the very outset that the patient was not only feeble in mind, but, being a German, spoke the English language very imperfectly indeed. So depressed in spirits was he, and so emotional, that often on being interrogated he would weep like a child. Briefly,

the history obtained was as follows: Patient's health record is good. He states that he has had intermittent fever several different times; was treated for this malady by several physicians. Like the other patient whose case has been just detailed, J. M. attributed his present troubles entirely to the results of ague. Some six months ago he was specially treated for ague; has never been in good health since then; his own account of his present illness is very vague indeed; however, about eight weeks ago he was obliged to take to bed. At that time he was feeble; had diarrhœa, chills, and cough of late. He cannot say whether the chills were of periodic occurrence or not; appetite rather poor; the tongue is red and glazed; no diarrhœa just at present; cough is slight; very little expectoration. The patient is of a sallow hue, though this is very much more marked on some days than on others; indeed, occasionally the aspect is tolerably healthy; the emaciation is considerable. The notes on the physical examination were as follows:

Lungs—Relative dulness in right side; most marked at angle of scapula behind.

V. R. and V. F. augmented on right side.

Respiration harsh and feeble; but râles are absent during ordinary respiratory efforts.

Heart—Sounds weak, but free from murmur; apex beat not defined.

Hepatic dulness extends from upper border of 6th rib, for 3 to 4 finger-breadths below the lower margin of the ribs. There seems to be a *tumour* of considerable size extending as low as umbilicus, and to the left of this point, in the form of a curve, with the convexity downwards. This tumour cannot be well defined, from the extreme rigidity of the abdominal walls; however, there is dulness over the whole right hypochondrium, epigastrium, and left hypochondrium, as indicated by the curved line referred to above. Below these points the abdomen yields a highly resonant note on percussion.

Subsequent examinations confirmed the first impressions. Flatus interfered with the percussion of the spleen. Veins of the abdomen distinct. The abdomen over the area of dulness is very tender, even on superficial examination; but deep palpitation reveals tenderness in other parts of the abdomen also.

As the course of Case 1 was given in some detail, it may suffice to outline the symptoms, with their variations, less minutely in this case. The patient was in the ward and under observation from December 18th, 1879, up to the date of his death, March 17th, 1880—three months.

The *Temperature* varied from 104° to 96½°, having been subnormal on several occasions. He had, on not a few occasions, chills, during and immediately after which the temperature rose, generally falling within twelve hours either to normal or two or three degrees. The patient was under the impression that these were fits of ague. There was, of course, the absence of the characteristic sweating and other symptoms of intermittent fever.

The *Pulse* ranged from 72 to 120 per minute, and varied with the temperature.

The patient vomited on several occasions, but *vomiting* never had been a marked symptom, nor was it such as to attract very much attention at any time. He did not vomit in all a dozen times during his three months' stay in the hospital.

Constipation, a very decided symptom in this case, was constant, yet overcome with moderate purgative doses. The stools were often scybulous, sometimes clay-coloured. The *Appetite*, till within three weeks of his death, was tolerably good, though very variable.

On admission, the *Urine* contained a trace of albumen; different examinations failed to establish the presence of casts. February 8th there was a trace of bile pigment, and an unusual amount of colouring matter.

Pain was frequently complained of in the abdomen, especially over the tumour; but this was invariably relieved by hot applications, without the use of opiates. The night before the patient expired he was thought by the nurse to be dying, and the resident physician, on going to him, found him in a state of partial collapse, from which he rallied on being given some stimulant. He died on March 17th, in clonic spasms.

During his residence in the hospital he was under the care successively of Drs. Locke, MacKelcan, Malloch, and Woolverton.

The treatment was largely expectant. Throughout the patient was given a nourishing

diet, and during the latter part of his illness alcoholic stimulants. There were very few special symptoms to be met by medication.

Extract from the *autopsy* records made 22 hours after death.

Rigor Mortis almost absent; eyes and mouth open; left pupil much dilated.

Diaphragm rises as high as 4th inter-space on right side. On opening abdomen by the usual incision, extending from chin to *symphysis pubis*, the small intestines and omentum are found studded with small bodies of a whitish colour and irregularly circular shape, the greater number being about the size of a sago grain.

The liver extends about to margin of ribs; its lower surface is, in part, adherent to a firm mass, formed by the stomach and in part by the transverse colon; the under surface of the diaphragm studded with nodules of a cheesy colour and consistence (or a little harder). In the belly there is found a tumid mass lying in the right hypochondriac and epigastric regions chiefly. This extends as far downwards as the umbilicus, curves from left to right, being lowest in the middle line. The upper two-thirds of this mass has a very firm feel, the lower third less so, and is made up in part of the transverse colon.

Heart not more than one-half the size of subject's fist; some nodules on the surface resembling those described in connection with the diaphragm; consistence of organ somewhat diminished; color brown; microscopic examination revealed excess of intermuscular connective tissue and the yellow pigment in the fibrillæ characteristic of Brown Atrophy; no valvular disease.

Lungs—*Left Lung* almost normal (a few enlarged glands at root).

Right Lung—About middle of upper lobe there are a few caseous masses, and in their neighbourhood some pus; a group of caseous glands to be seen at the root.

Stomach, &c.—The Liver, Stomach, Pancreas, and part of the Transverse Colon removed together, owing to the difficulty in separating them, so agglutinated were the three latter into one mass of disease.

The Liver is below medium size; has the "nutmeg" appearance in a moderate degree; capsule is thickened; on various parts of the surface several nodules of a yellowish-white colour, which, on section, are found to be solid

cylinders with a somewhat radiated aspect, though circular outline; some of them are stained with bile.

Stomach, along greater curvature, measures about 18 inches; breadth proportionate. The disease involves the *pylorus* and adjacent portion to the extent of one-third of the entire organ; in fact this portion is one immense mass of disease, evidently cancer in different stages. The upper and outer portion of this tumour is exceedingly firm, and on section through it pus is found abundantly. On reaching the inner surface of the organ, the appearance presented generally is that of a ragged growth, some parts of which have a pinkish aspect and soft consistence, suggesting encephaloid carcinoma; other masses, near the pylorus have a somewhat lobulated appearance. The cardiac and middle portions of the stomach apparently quite free from disease.

The glands of the mesentery are enlarged and caseous.

Brain—An examination of the encephalon revealed nothing special unless some compression of the convolutions on the right superior surface of the anterior lobe, and very moderate fulness of the vessels of the membranes and other parts.

A tabular comparison of these two cases may be instructive.

CLINICALLY CONSIDERED.

It is worthy of note, that both the patients supposed they were suffering from intermittent fever and its effects, and had been treated for this malady by several physicians.

CASE I.	CASE II.
Age, 56.	Age, 57.
History of chills.	History of chills.
Vomiting not a marked symptom.	Vomiting not a marked symptom.
Pain not troublesome or absent.	Pain present, but easily relieved.
So-called cancerous cachexia very pronounced.	Not at all well marked.
Appetite extremely poor.	Appetite mostly fair.
Dyspeptic symptoms grave.	Not much dyspepsia, apparently.
Diarrhoea persistent and uncontrollable.	Constipation.
Depression of spirits highly characteristic.	Equally so.

PATHOLOGICALLY CONSIDERED.

CASE I.	CASE II.
Scirrhus Carcinoma, affecting Pylorus and Duodenum.	Sc. Carcinoma, affecting less the P. and more the C. end of Stomach.
Secondary ("radiated") Cancer of Liver.	The same.
Moderate stenosis of Pylorus.	Food, to reach Pylorus, required to pass through a narrow channel created by the growth inwards.
Cancer confined to Pylorus, Duodenum, Liver, and Pancreas and adjacent glands.	Really a case of disseminated Carcinoma, the growth being found also in the Lungs, Heart, Intestines, Diaphragm, and omentum; the T. Colon involved and narrowed (explaining the constipation.)

Diagnosis.—Disease of the cardia was excluded from the infrequency of vomiting, and its character and period of occurrence, some time after a meal. There was no difficulty in swallowing, moreover, at any time.

Inasmuch as primary disease of the liver is rare, from the symptoms present in both cases it seemed fair to conclude that the growth originated in the stomach.

Pathology.—At the autopsy in the first case, from the position of the new growth, the extensive puckering, &c., there was no difficulty in concluding that scirrhus of the parts existed; a conclusion the microscopic examination proved to be correct.

In Case 2 there was more room for doubt as to the form of carcinoma present.

On the one hand, the disease had left free, almost, a part, to say the least, very commonly attacked.

Again, in the mucous surface of the organ at one portion there was the exact appearance presented by medullary cancer; but then, though soft, it lacked the pulaceous consistence of that form. Colloid was excluded, inasmuch as neither the proper colloid (gelatinous) matter was present to the naked eye, nor on microscopic examination were the *roundish* cells peculiar to this form to be seen. These sketchings

(shown to the Society) will give you an idea of the shape of the cells as found in different parts of the growth on the inner aspect of the stomach. The appearances suggesting encephaloid, epithelioma, &c., were probably due to the rapid retrogressive changes that take place in such foreign growths as cancer on a mucous surface, exposed as it more especially is in the stomach to the influence of the digestive fluids, food, &c., &c. No more striking picture is needed to impress upon the mind the aggressive, infiltrating, and disseminating character of malignant disease than that furnished at the autopsy in the second of the cases detailed.

CASES UNDER THE CARE OF DR. GRAHAM,
TORONTO GENERAL HOSPITAL.

PROGRESSIVE MUSCULAR ATROPHY.

[Reported by MR. EDMUNDSON.]

R. D., æt. 48, born in Ireland; admitted into the hospital February 10, 1880. Patient has lived in Collingwood for the last 19 years. He has been a fisherman by occupation since he was 18 years of age, having followed the business, first in Toronto and then in Collingwood, until three years ago. During this time he was very much exposed to cold and wet, and in salting the fish he had his hands and arms a great deal in cold salt water. For the last three years he has been a lighthouse-keeper; but the lighthouse was some distance from the shore, and he was frequently much exposed in going to and from it.

He has been 21 years married, and has ten children living, all quite healthy. He lost one child at the age of two years, but does not know the cause of its death. He has always been quite healthy until this trouble began. His parents are both dead. His father died at the age of 54, of some liver trouble; and the mother at 64, of paralysis.

Patient when about 20 years of age met with an accident, which resulted in permanent ankylosis of the left knee.

He has been a very moderate drinker, but has been a heavy smoker. Has latterly smoked more than ever.

About May, 1879, he noticed that the thumb of the right hand began to get weak. When

painting a boat, he could scarcely hold the brush. He could, however, row all summer, but in October he noticed that the index finger began to get weak, and this was immediately followed by weakness of the other three fingers of that hand, so that he was not able to row himself out to the lighthouse in stormy weather. In January he noticed that the arm became weaker, and in two weeks afterwards he noticed that the thumb on the other hand became also weak.

He has no lack of sensation, nor any peculiar sensations present in any part of the body. When electricity is applied, however, there are two spots very sensitive to its influence—one on each scapula. These spots are $1 \times 2\frac{1}{2}$ inches in size, and vary slightly in position, but are always on the dorsum of the scapula, below the spine.

Patient does not complain of any pain. He sits up all the time, but thinks that it tires him to do so more than formerly. He is fairly nourished, but the muscles of the right arm are perceptibly wasting, the measurements being less than the other in all situations. His pulse is 72; respiration, 18; skin, normal. His appetite is fairly good, as is also his general health. He has noticed that within the last three months his eyes are easily tired by reading. His hearing is good. He has no headache or vertigo. His bowels are regular, and his urine is normal in appearance and quantity. There is a great deal of twitching of the fibres of the affected muscles, as well as those connected with the scapula. The vibratile movements of the muscular fibres are especially marked when the surface is struck by the hand, or when they are excited by electricity.

It is difficult to make the extensors of the right arm respond to the Faradaic current, and it has been found impossible to get any response from the muscles of the ball of the right thumb.

The treatment recommended was the use of the Faradaic current and the internal administration of phosphorus and strychnia.

After remaining a week or so in the hospital, the patient left. Since his return home, I have heard that the disease is rapidly spreading, no effect being produced by the electricity.

The history of the case has been published on account of its being typical of this rather uncommon disease. The cause was probably the exposure to wet and cold. There was no history of hereditary taint. According to some authorities, the disease runs a more rapid course when it is brought on by exposure. The history of this case would seem to confirm this opinion.

SUPERFICIAL TUMOURS.

(FIBROMATA?)

[Reported by DR. WATT.]

M. E., æt. 32, baker, came to the hospital during March, 1880. He is married, and has a family of three children, all healthy, and has been quite healthy during most of his life. He has never had any serious disease except typhoid fever about two years ago, and small-pox when a child. He has never had any venereal disease, and there is no evidence of his having any.

The tumours which now appear on his body have been coming on for the last ten years. The first one noticed was on the inner side of the left forearm, about three inches from the elbow. It is now about the size of a horse-chestnut. He has seven smaller tumours on the same arm. They appeared most on the right arm, then on the thighs, and afterwards on the abdomen. Those on the arm give him no inconvenience, but those on the thighs and abdomen cause some pain. There is a kind of numb feeling, as if after a cramp, which affects the region of the abdomen but not the thighs. The tumours on the thigh have been coming on for the last five or six years. He knows of no hereditary disease in his father's family.

The tumours, with two or three exceptions, are freely movable under the skin, apparently existing in the subcutaneous cellular tissue.

The patient is a strong, healthy-looking man. Body well nourished. Digestive and urinary systems are healthy. Pulse 76.

On the left forearm there are eight tumours, from the size of a horse-chestnut to the size of a small pea; on the inner side of the left arm, two; and on the right, four or five.

There are none on the right arm. On the left thigh there are ten, principally on the anterior aspect; on the right thigh, six, occupying about the same relative position. On the abdomen there are nine tumours—six on the anterior aspect and three posteriorly. There are altogether between forty and fifty tumours on the various parts of the body.

The tumours are, generally speaking, symmetrical, occurring in corresponding places on each side of the body. On the thighs they are not so freely movable under the skin as on the arms.

There is some induration of the lymphatic glands of the neck. None of the tumours exist in the situation of the larger lymphatic glands.

The patient is quite confident that the tumours are slowly but steadily growing. They are hard in consistence, with two or three exceptions. So far, we have not been able to procure one for microscopical examination. It is impossible without such examination to make a diagnosis; but, from such evidence as we have, I would be inclined to consider them fibromata.

The treatment consisted mainly of the internal administration of potass. iodide. This remedy did not produce any decided effect in lessening the size of the tumours. They were, however, rendered somewhat softer by it.

There is no enlargement of the liver or spleen, and no excess of white corpuscles in the blood.

THE CÆSARIAN SECTION.—We take from a letter from Belgrade the following delivery: operation *curiosum*.—"Not far from the Servian border, in Prishtina, could a woman, notwithstanding three days' severe pains, not give birth to her child. In desperation her husband seized a razor, slit up her abdomen, removed the child, and—let a neighbour woman sew up the wound in the abdomen. And the best about it is, that now, after some months, both mother and child are completely well." The chief physician of the district, Dr. V. Gjongjevic, to whom we are indebted for this communication, adds, that "the whole affair has been investigated by the organs of the police on the frontier, and officially determined."—*Wien. Med. Wochenschrift*, 27th March, 1880.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, JUNE, 1880.

THE UNIVERSITY OF TORONTO.

The absence of any manifestation of an active, living interest on the part of a large proportion of the graduates of the University of Toronto in her vital condition and affairs has for a long time past been most remarkable. And perhaps the cause is not far to seek, if we call to remembrance the inordinate lack of interest in, and disregard or obliviscence of, her alumni after they have passed from her fostering care, which so long characterized those who govern her destiny and direct her ways. Old things, however, have passed away, and a new era, of better prospects, seems about to dawn upon us. The principle which asserts that, *ceteris paribus*, the alumni and graduates of the University have the first claim upon her consideration, and the honours and distinction which that consideration confers, is growing apace amongst the powers that be; and members of Convocation, and of the Senate too, are awakening to the fact that the proceedings of the Senate must be made public. The last meeting of Convocation, was probably the most influential and successful congress of graduates that has hitherto been assembled; and its success is a gratifying earnest of a similar result at the next meeting, on the 7th instant, at which several important topics which were then on the agenda paper, but whose consideration had, for lack of time, to be deferred, will be discussed. We were grieved to observe, as we have likewise been on former similar occasions, that amongst many graduates in arts, and members of the legal fraternity especially, the medical

graduates are not generally received with that cordiality and favour which the bonds of fellowship ought to enclose. The reason for this we fain would have some one tell us, for it is not apparent on the surface. If the members of the lower faculty be inflated with a sense of self-superiority, we can only point out that many of the medical graduates are also graduates in arts; some hold literary degrees from kindred institutions, and others, although devoid of the literary hall-mark of any University, are men whose general culture is not inferior to that of others so distinguished. Rather, however, than have these real or fancied disabilities continued, we would venture to suggest three alternative remedies, to wit:—Let the arts degree be deemed and held an indispensable pre-requisite, as it is in France (the baccalaureate of letters or of science), to entrance upon the medical curriculum; or, let the arts matriculation examination be substituted for the medical, and a special course of two or three years' training in science, and especially the scientific subjects pertaining to medicine, with a final certificate or degree conferred upon examination, be enjoined upon and required from all entrants into the medical faculty; or, lastly, let the standard of the medical matriculation examination be at once raised to a full and fair equality with the measure of general culture usually supposed to be attested by the arts degree, plus a proficiency in the special scientific subjects now regarded as ancillary to the study of medicine. In the interests of the medical faculty especially, and of the University at large, we think the Senate would do well to ponder on some such course. In the meantime, although we dare not venture to affirm of the University of Toronto, as has been so truthfully asserted of the University of London, that her medical graduates have been the chief authors of her fame, yet we are bold to aver, without fear of contradiction, that the medical alumni of our *alma mater* will, at least, do her no discredit; and we trust the day is not far distant in which, if the changes we have indicated be effected, she may properly be found addressing them as, "O! et præsidium, et dulce decus meum!" Of one thing we are certain: if the day of trial and misfortune be not (as some, not altogether pessimistic, are wont to

predict) far off, the medical graduates of the University will be found—and their influence in the country is not small—foremost at the outposts of defence, the most faithful of her bulwarks, the most dutiful of her sons.

We trust that all whom our present voice can reach will not fail to rally at the signal now sent forth for a grand gathering of graduates on the 7th instant, to renew the memories and fond associations of "auld lang syne," and to talk together in a brotherly way of the present health and future welfare of our dear young *alma mater*.

SUMMER COMPLAINT IN CHILDREN.

The season of disaster among the infants is even now upon us, and the bulk of the physician's practice during the next few weeks will be in caring for the bowel complaint of children. Doubtless the vast majority of these complaints are directly traceable to errors in diet. The physiological fact is unknown to the vast majority of mothers, and is forgotten or disregarded by very many physicians, that the infant, before it has its teeth, does not secrete saliva in sufficient quantity for the digestion of starch food, and the consequence is the general prevalence at this season of infantile diarrhœa. Cow's milk, next to that of the mother the most natural food for the child, very rapidly sours during this weather, unless greater precautions are taken than is generally possible, and it thus becomes a fruitful cause of trouble. What is wanted is a food which shall obviate the objection to both farinaceous or starchy preparations and milk. With such a food in the hands of mothers, disease and death among the children, at this season particularly, would be largely reduced. It remained for Liebig to prepare a formula for such a food, and many physicians can testify to its success. It is easy to understand, however, the difficulty in the way of preparing this food by the general practitioner, and it is with pleasure we note the fact that Horlick's Food for Infants, which is prepared after Liebig's formula, can now be had at most of the drug stores. We have found that little else is required in many cases of summer complaint, than to place the child on this food as its exclusive diet.—*Michigan Medical News*.

Book Notices.

The Problems of Insanity. By GEORGE M. BEARD, A.M., M.D., New York.

Announcement of Pickering College for the year 1879-80.

Lecture on Pain and Anæsthetics. By LAWRENCE TURNBULL, M.D., Philadelphia.

Modern Abuse of Gynecology. By CLIFTON E. WING, M.D., Boston.

Diseases of the Maxillary Sinus. By EDWARD BORCK, M.D., St. Louis, U.S.

Annual Announcement of the Medical College of the Pacific—San Francisco, Session of 1880.

The Prospective Advantages of Baltimore as a Medical Centre. By JOHN VANBIBBER, M.D.

Third Report of the Pennsylvania Free Dispensary for Skin Diseases, Nov. 1, 1878, to Jan. 1, 1880.

Electricity in Medicine and Surgery. With Cases to Illustrate. By JOHN J. CALDWELL, M.D., Baltimore.

A Case of Intra-Ovarian Pregnancy, with Post-mortem Examination. By TALBOT JONES, M.D., St. Paul, Minn.

Ethylization: The Anæsthetic Use of the Bromide of Ethyl. By R. J. LEVIS, M.D. From the New York Medical Record.

The Abuses of Medical Charities. By M. P. HATFIELD, A.M., M.D., Chicago, and ROSWELL PARK, A.M., M.D., Chicago.

Valedictory Address to the Class of the Jefferson College Quiz Association. By JOHN V. SHOEMAKER, A.M., M.D., Philadelphia.

Thirty-first Annual Report of the Trustees of Indiana Hospital for the Insane, for the year ending October 31, 1879.

Alcohol in Health and Disease. By R. M. BUCKE, M.D., London, Ont. Read before the Dominion Medical Association at London, in Sept., 1879.

Consideraciones sobre la Estadística de la Enagenacion Mental en la Provincia de Buenos Aires. Por los doctorès Lucio Melendez, Emilio R. Coni.

Sea Sickness: Its Nature and Treatment. By GEO. M. BEARD, A.M., M.D. New York: E. B. Treat, Broadway.

This little book of 72 pages, issued in popular style and treated in a quasi popular manner, will perhaps repay perusal by those members of the profession who have leisure for such literature. The author gained his experience in the American Navy, and falls completely foul of Mr. Crochley Clapham and his nitrite of amyl treatment. The therapy he proposes is bromization, as he terms it, the system being brought under the influence of the bromides two or three days before sailing. There are practical hints scattered throughout the book which, being the outcome of actual experience, will doubtless prove of service to those who are compelled to put them to the test.

Modern Medical Therapeutics: A Compendium of Recent Formulæ. By GEO. H. NAPHEYS, A.M., M.D. 7th Edition, enlarged and revised. 1880. Philadelphia: D. G. Brinton; Toronto: Willing & Williamson.

The interests of a book whose popularity has been attested by the attainment to a 7th edition will not be greatly affected by the favourable or unfavourable comments of a reviewer. Of the work before us we can sincerely say that it is good—it is excellent—of its kind, but that kind is execrable. We know of nothing so likely to produce a generation of slipshod, slovenly, symptom-treating practitioners as ready access to cut-and-dried formulæ set opposite a list of symptoms and a nosological catalogue.

The temptation to avoid the trouble of a diagnosis is exceeding great; and the search for and removal of a cause is not to be thought of; even the occasion for sufficient mental

labour to compose a prescription is removed, and the practitioner becomes a walking compendium of symptoms and formulæ of the dangerous properties of whose ingredients he is probably equally as ignorant as of their rightful use.

With the formulæ themselves we find no fault, and they bear with them the endorsement of some of the best names in the profession. Could the book be restricted to its proper sphere and legitimate use for occasional reference, it would doubtless prove of much utility and service.

Keynolds' System of Medicine. Volume II.
Philadelphia: Henry C. Lea's Son & Co;
Toronto: Hart & Rawlinson.

The second volume of the American reprint of this exhaustive work on the Practice of Medicine has been received. Like the first volume, it places within the reach of the profession all the matter of any value, up to the present time, that is to be found upon the subjects discussed, and at an extraordinarily low price.

The various local diseases, the consideration of which was commenced in the first volume, are disposed of in the second.

The diseases of the thoracic organs then come under review. In every part of this most important subject, the editor seems to have spared no pains in endeavouring to secure the views of the most advanced and intelligent thinkers; and he may fairly be congratulated upon the excellent success which has followed his efforts. We have gone over the article on Pneumonia with considerable care. In all particulars it is a most excellent and valuable compendium of the literature of the subject, as well as a very intelligent expression of the author's own views. We are pleased to note, in connection with the various forms of treatment mentioned, that the author, while not altogether ignoring the efficacy of some of the plans recommended, is not disposed to give undue prominence to any particular one. Routine, which is to be deprecated in the treatment of all forms of disease, receives small encouragement at his hands. If there be any fault in this part of the article, the one that most strikes us is the small faith placed by the

author in medication as compared with proper nourishment and good nursing; and we are not sure that, even in this particular, he is not as nearly right as any.

The next part of the volume is occupied with the consideration of some of the rarer forms of lung disease, among which are syphilitic affections of the lungs, brown induration of the lungs, cirrhosis of the lungs, and apneumotosis. Lung diseases are then concluded, with very excellent articles on Bronchitis and Pleurisy.

The remainder of the volume is occupied with the discussion of the diseases of the organs of circulation. Upon this part of the work a degree of care has been displayed in furnishing the reader with the very best thought at the disposal of the profession, which is at once creditable to the compiler and of incalculable value in a work of the kind. It may be that monographs upon special topics are in some respects the best; and if so, the value of this entire work is greatly enhanced, for the reason that it is essentially a compendium of monographs. For instance, the "weight and size of the heart" are discussed by Dr. Peacock, an eminent authority upon the anatomy, physiology, and pathology of that organ. The position and form of the heart and great vessels is then discussed by Dr. Sibson. "Lateral or partial aneurism" of the heart is then discussed by Dr. Peacock. And so, in like manner, the greatest pains have been taken to obtain not only the most recent, but the best thought on all the various questions relating to diseases of the organs of circulation.

Without reference to the question of copyright, this American reprint is a great boon to the profession.

Our Homes. By HENRY HARTSHORNE, A.M., M.D., formerly Professor of Hygiene, Univ. Penn., etc. Philadelphia: Presley Blakiston, 1880.

This is Number IX. of the "American Health Primers." The first five chapters have the respective headings of "Introduction," "Situation," "Construction," "Light," and "Warmth."

The chapter on "Ventilation," and the plates on p. 68 illustrative of the movements of cur-

rents of air, we would commend to those who think that in winter as well as in summer the warm air of our rooms should be sent off post haste through openings at the ceiling, before it has had a chance to circulate throughout the room.

We cannot understand what our author means when he says, on p. 53, "A man, by his breath, will spoil in twenty-four hours about three hundred and fifty cubic feet of air" On p. 56 he allows the man "1,000 feet air space," with "air changed about four times in an hour"—i.e., 4,000 feet in an hour; and we would suppose this to be allowed because he "spoiled" just that much in the hour before. (3,000 feet per hour is allowed by most authors.) We have tried to make 350 feet tally with the amount of Carbon Dioxide (.6 of a foot per hour) given off; and also with the actual amount passing in and out (tidal air) of the lungs, but we cannot make it out.

Under "Water Supply" the author hits our city wells, but not half hard enough; but when he comes to the chapter on "*Drainage*" he does them full justice by giving Teale's graphic plate, in which are represented a well receiving liquid filth from an adjacent cesspool, and a man drinking the mixture with great gusto. This plate will touch the chords of memory in some of our friends of the Hamilton Asylum.

We are glad to see laid down a system of drain ventilation which is not laid down in our more pretentious text-books, but which has been advocated for some years by some of our lecturers on Sanitary Science. This consists of a "U-shaped arrangement" of two pipes ascending up to, or above, the roof, one from each end of that portion of the drain which is within the house, one of these pipes being the soil pipe extended up through the roof, and the other a special ventilating pipe. This arrangement gives two counter openings for the passage of air at the opposite ends of the drain, and there is a constant sweep of air down one pipe through the drain and up the other. We are surprised that Dr. Hartshorne should have given any countenance to Wilson's blunder of calling the hand hole of a cleansing trap a ventilation pipe (Fig. 29).

We join, of course, with all sanitarians and philanthropists in endorsing the appeal of our author to Governmental and Municipal authorities to aid and assist in combating the causes of disease. If human life is of any value to the State or community, the State or community might just as well adopt the means for defence and protection which can only be obtained by united action and authority. The book is written for the improvement of the general public, who will do well to read, mark, learn, and inwardly digest its contents.

Meetings of Medical Societies.

RETIRING ANNUAL ADDRESS OF THE PRESIDENT OF THE TORONTO MEDICAL SOCIETY.

BY JOSEPH WORKMAN, M.D., TORONTO.

GENTLEMEN,—In conformity with the requirements of your constitution, the duty now devolves upon me of presenting a summary recapitulation of the progress of the Society during the year now closing—the second of its existence.

It is most gratifying to me, as I am sure it must be encouraging to you, that I am able to compliment you not only on the extent and useful variety of your proceedings, but also on the social propriety and strict professional decorum with which they have invariably been conducted. I feel persuaded that, as regards both the quality and the amount of your work, this Society would bear favourable comparison with some of those in far older and larger cities, and the hope of your successful progress entertained by me at the outset of your career has now grown into a settled conviction of your enduring vitality.

It is indeed true that several of our professional brethren, whose enrolment in our membership would have been most acceptable and encouraging, and no doubt most profitable to our infantile organization, have failed to award us the privilege of their fraternization; I trust, however, the time is now past when the identification of these gentlemen with our enterprise can be regarded as of sustaining vital importance, and I would fondly hope that you now feel imbued with that spirit of self reliance which is the basis of all co-operative success, and is the inspiring incentive to all vigorous effort.

Abundant proof of the successful progress of your Society would be made apparent by a full recapitulation of the proceedings of the past twelve months; but the rehearsal, however pleasing to me, and gratifying to you, would be too lengthy for the limits of a presidential valedictory. I shall therefore mainly confine myself to some brief notices of the various papers kindly presented by members during the year, the records of which have been so ably and

faithfully made by your painstaking, punctual, and very zealous recording secretary, by whose politeness I have been enabled to gather the following abstracts in this relation.

At the meeting of 15th May, 1879, a very instructive demonstration, illustrated by appropriate drawings and apparatus, was given by Dr. Oldright, on the highly important subject of the deleterious influence, in dwellings, of sewer gas. This subject was ably followed up by Dr. Oldright, at the subsequent meeting of the 29th of same month, and I doubt not it commanded the serious consideration of all who had the pleasure of listening to Dr. Oldright's lucid and able exposition of the evils resulting from this class of structural domestic arrangements.

On 12th June, in the absence of any forthcoming paper, the President read a translation of the notes of the Extirpation of a Tumour on the Neck, published in a South American journal.

On 10th July, Mr. Monk, an honorary member, read a very interesting paper on the Relation between Health and Weather, in which he showed the great importance of a rational and comprehensive system of regular records and statistical returns in relation to this desirable object.

On 28th August, Dr. Nevitt read a paper of similar purport to the preceding.

On 25th September, Dr. Adam Wright read a valuable paper on Hypertrophy of the Prostate Gland, which led to much instructive discussion, and certainly made serious impression on the senior members present.

On October 9th, Dr. McPhedran gave a paper on Cystitis, which was characterized by his usual well-known ability.

On October 3rd, the Society were entertained by Dr. Alt, on the subject of Tumours in the Anterior Part of the Eye, other than epitheliomata.

On November 6th, Dr. Graham read a paper on the rare form of disease called *Morphea*, which was regarded by the Society as a valuable contribution to the department of dermatology, and led to instructive discussion.

On November 20th, Dr. Wilson, a zealous country member, read a practical paper on

Anæmia, in which he evinced an intimate knowledge of the class of morbid affections related to this constitutional condition. He was followed by Dr. Riddel, who read a paper on Smallpox, in which much valuable clinical and statistical information was given.

On December 4th, Dr. Temple, whose presence we could all desire to have been more frequent, read a paper on The Use of the Long Forceps. This paper elicited a very instructive and free discussion, in which its author bore no weak part, and acquitted himself with that frankness and clearness of diction which all who know him well know to be his constant characteristics.

On January 15th, 1880, the President read a printed paper, published by Dr. A. Robertson, of Glasgow, on "*Some of the Pathological and Physiological Relations of Brain and Mind*," &c., &c.

On January 29th, Dr. Covernton read a valuable paper on "Perforating Gastric Ulcer," which merited the earnest consideration and thanks of the Society.

On February 12th, Dr. Gahan read a very useful paper on Pyæmia, which was equally indicative of his discreet research and his extended professional erudition. Junior members of the profession may not appreciate such industrious productions so warmly as those of advanced years; yet I venture to say, that a writer who reproduces much that is truly good and sound is a better contributor to true science than one who dilates in original crudities or random hypotheses.

March 11th, Dr. Robinson treated us to a disquisition on a disease with which he gives adequate proofs of no slender professional, though of course not personal, intimacy,—Gonorrhœa, to wit:—as Dr. R. led us to believe that he was treating of a malady of which his clinical observance has been extensive, it is to be hoped he will favour us with a further exposition of his views on a very important kindred malady before another anniversary comes round.

On March 11th, we had the gratification of hearing a very suggestive paper from Dr. White, on early abortions, which was well received and profitably discussed.

On April 8th, Dr. Daniel Clark read a very interesting paper on "Brain Lesions," the materials for which were mainly derived from his own field and hospital observances in the late American civil war. Though the general tenor of this paper appeared almost completely to supersede the notion that mental integrity is in any way linked with cerebral condition, Dr. Clark declined to express any decided views on this important question. It is, however, to be hoped that he will on some future occasion feel disposed to enounce more clearly those convictions to which his collated facts appeared so definitely to point.

On 22nd April, Dr. Macdonald read a paper on Epithelioma Uteri, which was listened to by a full audience with marked attention, as its merits well deserved, for it was manifest that its author had not approached his subject without previous extensive research. In the discussion which the paper drew forth, Dr. Osler, of Montreal, who was present, in response to the request of the President, took a part, and was warmly greeted by the meeting.

This paper was the closing one of the year, and it certainly was no slovenly completion of your work. The manner in which Dr. Macdonald acquitted himself on this occasion was well calculated to lead the Society to entertain sanguine expectations of his future contributions, and it is sincerely to be hoped we shall yet stand largely indebted to his zealous industry.

I could wish that, within any moderate limits, I might recapitulate the other proceedings of the Society under the heads of "*Pathological Specimens*," and reports of "*Cases in Practice*." I must, however, restrict my remarks to the simple statement that both these contributions have been truly liberal and rich; and it is my conviction that every member who has been a regular attendant will promptly and cheerfully corroborate my words, whilst all will join with me in tendering our warm thanks to the gentlemen who have, in these respects, so generously contributed to our instruction; and as gratitude has been said to consist in a keen appreciation of future favours, let us hope that our good friends will endeavour to sustain us in the cultivation of this laudable virtue, by a

munificent prolongation of their kind attentions.

It now, gentlemen, devolves on me to tender to you all my most sincere thanks for the honourable position in which your kindness has kept me placed during the past two years; and I most frankly entreat you to believe that in declining nomination for a third time, I have been actuated by no other feeling than an earnest desire for your abiding prosperity. That I regarded the occupancy of your Presidential chair as no trivial honour, and no equivocal manifestation of your esteem, I feel assured you will all firmly believe; but my very appreciation of the honour of the position has been the chief cause of my determination to vacate it for the elevation of a successor,—for I have ever been an opponent of monopoly, and I regard a fair and judicious rotation of honorary distinctions as an important element of success in all co-operative organizations.

To my successor (whose election, I would venture to express the hope, will be by unanimous vote), I promise my most cordial and full support; and from all I have myself experienced at your hands, I am emboldened to pledge the same on your behalf.

ATROPIA IN SPERMATORRHOEA.—Dr. Stephanides had under his care a case of progressive muscular atrophy with beginning bulbar paralysis, complicated by profuse and rebellious spermatorrhœa. As the latter symptom could not be attributed to a condition of irritation in the genito-urinary passages, it seemed likely that relaxation and dilatation of the ejaculatory ducts had occurred as a result of irritation of that portion of the spinal cord which presides over the formation and evacuation of sperm. Regarding the condition of affairs as comparable to that found in salivary hypersecretion resulting from bulbar paralysis, it seemed likely that atropia, which proves useful in this disorder, should also be beneficial in spermatorrhœa from the same cause. Atropia was, therefore, administered in solution in the dose of $\frac{1}{100}$ grain every evening. In three days the spermatorrhœa was arrested, and in a very short time entirely cured.—*Jour. des Sci. Med.*, 1880, p. 36; from *Wiener Med. Presse*.

Miscellaneous.

TORONTO SCHOOL OF MEDICINE—SCHOLARSHIP MEN.—The Christmas and April Examinations of this School conjointly resulted in the following award of scholarships:—1st Year, W. J. Robinson; 2nd Year, J. F. Duncan; 3rd Year, J. H. Duncan; 4th Year, Peter H. Bryce, M.A.

TRINITY COLLEGE EXAMINATIONS.—The following gentlemen recently passed the final examination for the degree of M.B.:—Gold Medalist, J. McWilliam; Silver, D. M. Martin; Certificates of Honour—W. Beatty, L. B. Clemens, H. W. Smith, R. Patterson. Passed—Bentley F. Boyd, W. W. Brownlee, M. Cattermole, F. Hatton, E. F. Hunter, J. A. Island, R. L. Jones, G. P. Lundy, F. B. McWilliam, R. McIntosh, G. A. C. McNaughton, J. A. McTavish, D. McPhatter, N. L. Patterson, R. Shaw, J. E. Shaw, J. M. Wilson, S. E. Wilson, R. Spence, C. F. Smith.

THE ACTION OF ALCOHOL.—An interesting series of experiments on the physiological action of alcohol in its relation to animal heat, and its influence upon the vasomotor nervous system, has been carried out at the West Riding Asylum by Dr. Bevan Lewis.—(*Journal of Mental Science*.) The conclusion, as regards alcohol, is in direct antagonism to the view that in very large doses it lowers temperature by directly checking tissue metamorphosis. The characteristic action of alcohol is to greatly increase the production of heat, whilst dispersion of the freshly-formed heat is facilitated by peripheral vasomotor paresis. It is only in very small doses that we get a temporary lowering of heat-formation.—*London Lancet*.

COLLEGE OF PHYSICIANS AND SURGEONS—LIST OF SUCCESSFUL CANDIDATES AT THE MATRICULATION EXAMINATIONS.—The following candidates passed the Matriculation examination, before the examiners of the College of Physicians and Surgeons of Ontario, at the last examination:—Wilson, J. D.; Bowmau, Amos F.; Gush, Norman B.; Anglin, W. G.; Disney, Henry C.; Coal, J. A.; Cowan, John F.; Fergusson,

John; Sangster, Alexander; Webster, E. Harvey; Wood, Edward G.; Kilgour, Peter T.; Cochrane, Chas. E.; Lauder, T. H.; Crosby, Archibald W.; Tracy, Albert F.; Hislop, Robert; Lake, Andrew D.; McMichael, James; Jaques, William; Cameron, Duncan A.; Elliott, Adam G.; Lundy, Fred. G.; Wright, Walter Henry; Kennedy, William; Holmes, Edward S.; McGillivray, Mrs. F. S.; Christie, Andrew; McCullough, James H.; O'Brien, Tim.; Martin, J. Francis; Coleman, Mary E.; Staebler, D. M.; Smith, Robert S.; McPhail, Duncan P.; Shoults, George; Leitch, A. L.; Duncombe, Chas. E. B.; Fahey, Thomas H.; Johnston, James F.; Porter, Thomas; McGhie, George S.; Robinson, T. H.; Moore, Thomas A.; Bascom, Horan; Hoople, E. M.; Barber, Robert A.; Davis, T. B.

TO THE PROFESSION.—In order that clearer light may be shed upon some important and still unsettled questions, and for the purpose of adding to the completeness of this work* in

* *The Hypodermic Injection of Morphia.* By H. H. Kane, M.D., New York.

subsequent editions, the author requests members of the profession *everywhere* to answer the following questions at once:

1. In how many cases of delirium tremens, in what doses, and with what result, have you used morphia hypodermically?

2. Have you used the drug in this manner in acute inflammatory affections of the respiratory organs, and with what result?

3. Have you used it in acute or chronic renal disease, and with what result?

4. Do you know of any deaths due to the subcutaneous injection of morphia? If an autopsy was held, please state the result.

5. Have you had any serious cases of narcotism from the use of morphia in this manner? If so, please state the condition of the pupils, number of the respirations and pulsations, the amount of morphia used, whether there was any known organic disease, and whether there was any opium idiosyncrasy.

6. Have you had any cases where the drug was thrown directly into the blood? What were the symptoms and what the treatment?

7. In what diseases have you used this method of administering morphia, and with what results?

All communications will be considered strictly confidential, the reporter's name not being used when a request to that effect is made.

UNIVERSITY OF TORONTO.—*Medical Examinations—The Successful Candidates.*—The following is the list of successful candidates for the recent medical examinations in the University of Toronto:—*Candidates for M.D.*—Hamilton, C. J.; Lesslie, J. W.; McCarroll, J.; O'Neil, E.; Park, T.; Pyne, R. A. *Honour List: First Examination.*—Anatomy—Class I.—1, Meldrum; 2, Robinson. Biology—Class I.—1, Robinson, 2, Davidson. Chemistry and Natural Philosophy—Class I.—1, Robinson, 2, Meldrum. Class II.—Clarke. *Second Examination.*—Anatomy—Class I.—Wallace. Class II.—1, Ferrier and Duncan (equal); 3, Montgomery; 4, Ferguson. Physiology—Class I.—1, McMurrich; 2, Johnston; 3, Wallace and Duncan (equal); 5, Cleland. Class II.—1, Kent and Eastwood; 3, Woolverton; 4, Milroy and Knill; 6, Lafferty; 7, Hanbidge and Montgomery (equal); 9, Ferrier. *Materia Medica and Therapeutics.*—Class I.—Ferrier and Wallace (equal). Chemistry—Class I.—1, Ferrier; 2, Cleland; 3, Wallace. Class II.—1, McMurrich; 2, Duncan. *Histology.*—Class I.—1, Hanbidge; 2, Duncan; 3, Pantan; 4, Milroy; 5, Ferguson, Montgomery, and McMurrich (equal); 8, Eastwood; 9, Ferrier; 10, Wallace; 11, Knill; 12, Cleland. *Third Year.*—Medicine.—Class I.—1, Duncan; 2, Mearns. Surgery.—Class I.—1, Duncan; 2, Mearns. Midwifery.—Class I.—1, Duncan; 2, Mearns. Med. Jur.—Class I.—1, Duncan; 2, Mearns. Comp. Anatomy.—Class I.—1, Duncan; 2, Mearns. Chemistry.—Class I.—Duncan. *Candidates for M.B.*—Anatomy—Class I.—1, Cross; 2, Bryce and Fisher (equal). Class II. 1, Ferguson; 2, Welford. Physiology—Class I.—1, Cross; 2, Ferguson; 3, Bryce; 4, Fisher. Class II.—Welford. Medicine.—Class I.—1, Welford; 2, Ferguson; 3, Cross; 4, Bryce; 5, Fisher. Surgery.—Class I.—1, Cross; 2, Bryce. Class II.—1, Welford; 2, Ferguson; 3, Fisher. Obstetrics.—Class I.—1, Welford; 2, Bryce; 3, Ferguson; 4, Cross. Class II.—Fisher. Therapeutics—1, Bryce and Cross (equal); 3, Ferguson; 4, Fisher. Class II.—Welford. Chemistry.—Class I.—1, Cross; 2, Bryce. Class II.—Ferguson. Medical Jurisprudence—Class I.—1, Cross; 2, Bryce; 3, Ferguson and Welford (equal). Class II.—Fisher. Botany.—

Class I.—1, Bryce and Ferguson (equal); 3, Cross. Class II.—Welford. Pathology.—Class I.—1, Cross; 2, Ferguson; 3, Fisher; 4, Bryce; 5, Welford. *Medals.*—University Gold Medal—Cross, W. J. University Silver Medal—1, Bryce, P. H.; 2, Ferguson, J. Starr Gold Medal—Cross, W. J. Starr Silver Medal—Bryce, P. H. *Scholarships.*—First Examination—Robinson, W. J.; Second Examination, Wallace, R. R.; Third Year, Duncan, J. H.

APPOINTMENTS.

Stephen Wright, of the city of Ottawa, Esq., M.D., to be an Associate Coroner in and for the county of Carleton.

Rodney Harrison Abbott, of the Village of Stony Point, Esquire, M.D., to be an Associate Coroner in and for the County of Essex.

John Munro Forbes, of the village of Caledonia, Esq., M.D., to be an Associate Coroner in and for the county of Haldimand.

Duncan McFayden, of the village of Charleston, Esq., M.D., to be an Associate Coroner in and for the county of Peel.

William S. Fraleigh, of the village of Gananoque, Esq., M.D., to be an Associate Coroner in and for the united counties of Leeds and Grenville.

John S. Loomis, Esquire, M.D., to be a License Commissioner in and for the License District of North Hastings, in the room and stead of Thomas Cross, Esquire, resigned.

Dr. Charles Sheard has been appointed Lecturer on Histology and Botany, and Dr. G. S. Ryerson has been appointed Lecturer on Diseases of the Eye and Ear in the Trinity Medical School, Toronto.

Births, Marriages, and Deaths.

BIRTHS.

At Thistletown, on the 18th of April, the wife of Dr. Savage of a son.

MARRIAGES.

At Hamilton, on April 21st, Wm. Irving, M.D., of Exeter, to Miss Isabella Fletcher.

At St. Thomas, on April 24th, R. M. Eccles, M.D., of Blissfield, Michigan, to Carrie, youngest daughter of John Pritchard, Esq., of Lucan, formerly of St. Catharines.

DEATHS.

At the Army Medical Depot Hospital, England, on March 25th, Surgeon-Major A. P. M. Corbett, M.D., late Surgeon Prince Consort's Own Rifle Brigade, eldest son of the late Sheriff Corbett, of Kingston.

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THE Canadian Journal of Medical Science.

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R. ZIMMERMAN, M.D., L.R.C.P., London,
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Selections: Medicine.

THE NATURE AND ACTION OF THE CAUSES OF DYSPNŒA IN PNEUMO- NIA, OTHERWISE THAN HEPATIZA- TION, AND THEIR SPECIFIC TREAT- MENT.

BY BEDFORD BROWN, M.D., ALEXANDRIA, VA.

The function of respiration may be affected very differently in individual cases by the same extent of consolidation of pulmonary tissue in pneumonitis.

The consolidation of one-half or three-fourths of one lung may, in one patient, prove the cause of no serious disturbance of respiration, while the same extent in another case would be attended with an extreme degree of dyspnœa. Again, a very limited pneumonitis, which in one person would scarcely elevate the respiratory rate above the healthy standard, may in others cause serious respiratory embarrassment.

These facts, which are familiar to all medical men, would indicate that the symptom of dyspnœa to which we attach so much importance in our prognosis, and as a guide to treatment in pneumonia, does not always correspond in degree with the amount of tissue involved in the process of hepatization, but that other causes are also operative for its production, the nature and action of which are necessary to be clearly comprehended.

The importance of dyspnœa in pneumonia, in these particulars as a symptom, cannot well be over-estimated. No fatal case of pneumonia has ever come under my observation which was not characterized by the most distressing dyspnœa.

Prolonged and close investigation of the subject of dyspnœa, convinces me that it is not a simple result only of mechanical obstruction of a certain set of air cells, but that really the causes of this symptom are rather of a complex character, and are most intimately associated with the disordered functions of both the heart and lungs. As a confirmation of this statement, we know that with a sound heart acting with perfect rhythm, slowly and forcibly in pneumonitis, though very considerable consolidation of lung may exist, there will generally be but slight resulting dyspnœa. On the contrary, if, in pneumonia, the heart acts irregularly, feebly, and with unusual frequency, though the area of hepatization may be moderate in extent, there will almost of a certainty be troublesome dyspnœa.

In health, the respiration rate varies from nineteen to twenty-one per minute, while the pulse rate also varies from sixty to seventy per minute. This is the normal pulse-respiration ratio or equilibrium. There are also *abnormal* pulse respiration ratios. For instance, when the rate of cardiac action rises to one hundred and twenty-five, probably the respiration rate will, of necessity, also rise to forty or more. This is an abnormal pulse-respiration rate. Thus it is just as essential that this equilibrium should be maintained in disease as in health, by the adaptation of the rate of respiration to that of the heart. The latter follows the former invariably in the process of adaptation.

When hepatization has been fully established, the pulmonary circulation is absolutely suspended through the consolidated portion of lung. It is positively cut off from that avenue. Therefore all the blood of the entire system must

pass through the pulmonary vessels of the healthy portions of the lungs. This, of course, creates a necessity for an increased number of inspirations per minute, to compensate for the diminution of pulmonary capacity, and also for the increased pulse-rate.

So long as the column of blood from the right side of the heart can pass to the left, regularly, evenly and continuously, admitting sufficient air for its oxygenation into the lungs, there need be only a few additional inspirations per minute, to compensate for the loss of breathing space. But when there is a failure to do this, either from inadequacy of cardiac power, or from excess of that power, or from some intervening circumstance, as œdema, excess of bronchial accumulation, and more venous blood accumulates in the healthy lung tissue than can pass to the left side, then true dyspnoea begins, with all its train of distressing consequences. So there is a marked distinction to be drawn between the laboured breathing of true dyspnoea caused by a sense of impending suffocation, and the simple acceleration of respiration necessary to meet the new rate of cardiac action. The action of those remarkable sedatives, *veratrum* and *aconitè*, serves to illustrate this question in an interesting manner.

The primary therapeutic influence here is on the action and rate of the heart. When these have been reduced to within an approximation of the normal standard, though extensive pneumonic hepatization may exist, the respiration rate will surely fall correspondingly—the two keeping pace, as closely as in the abnormal rise.

ŒDEMA OF THE LUNGS IN PNEUMONIA A CAUSE OF DYSPNOEA.—Œdema of the pulmonary tissue is a very common factor in the causation of dyspnoea in this affection. To some extent, it doubtless exists in a majority of cases; but in certain instances it becomes excessive, when it proves a dangerous obstacle to respiration.

The forms of pneumonitis most prone to pulmonary œdema are the typhoid, malarial, and those cases associated with great blood impoverishment, as in *anæmia* and *uræmia*, the poisoning of *pyæmia*, and lastly, in mitral disease.

In malignant typhoid and malarial pneumonitis, œdematous effusion in the pulmonary tissue is often so sudden, rapid and overwhelmingly extensive as to cause the most alarming dyspnoea, and not unfrequently a suspension of respiration within a few hours after the first onset. This condition of affairs is not unfrequently confounded with active congestion, and the error is often acted on. In these cases, the primary effect on the pulmonary circulation is obstruction, then passive engorgement of the pulmonary circulation, excessive accumulation of venous blood in the right ventricle and auricle, and finally in the entire venous system, causing not unfrequently thrombosis of the pulmonary artery. We have here a state of affairs co-operating for the production of dyspnoea, more exquisitely painful and alarming than in almost any other form of this disease.

No one can witness such scenes as these cases present without appreciating the importance of the subject of its various causes, its serious bearing on the course and termination of pneumonia, and without entertaining a deep and earnest desire to afford relief from the suffering and danger which it entails.

SPECIAL TREATMENT OF PULMONARY ŒDEMA.

—In the treatment of this condition of the lung, the combination of infusion of *digitalis* in full doses, with the tincture of the chloride of iron, and infusion of *ergot*, constitutes a valuable and efficient means of removing the effusion, and of improving the general state of both the circulation and blood. To this may be added, to render the diuretic action of the treatment more decided, the *liquor ammoniæ acetatis*. The value and efficiency of these remedies depends very much on their frequent repetition.

The application of revulsives, in the form of extensive dry cupping, and, if necessary to procure relief, over the entire chest, and, indeed, over both the diseased and healthy lungs, when œdema is excessive and the dyspnoea is very great, is invaluable. This remedy is equally applicable to the treatment of all the various conditions causing dyspnoea. Its action in relieving distressing dyspnoea under these circumstances is often prompt and speedy.

Forty or fifty dry cups applied over the chest, produce enormous dilatation of cutaneous and subcutaneous capillaries and arterioles, which, when considered in the aggregate, constitutes a very extensive temporary diverticulum, capable of retaining, for some little time, a pound or more of blood, which forms a freer and larger channel for the diversion of blood, which it is desirable to save, from the internal and now embarrassed channels. It is remarkable how long this extensive dilatation of these external vessels will continue to invite this free and abundant supply of blood to themselves from the internal organs.

All are familiar with the troublesome and excessive hæmorrhages which a few dilated capillaries of the mucous surface will cause by creating a new and free channel for the circulation. The principle of action of this remedy is very similar. This diversion of a large portion of blood from the internal circulation to the external, by dilating the arterioles to two or three times their natural calibre, relieves the right ventricle from much of its labour in these cases, and the pulmonary circulation from its overloaded condition, and, in part, from the danger of thrombosis.

EXCESSIVE MUCOUS ACCUMULATIONS AND BRONCHIAL PARALYSIS AS A CAUSE OF DYSPNŒA.—Bronchitis as a complication of acute pneumonitis, is not unusual. In many of this class of cases, the mucous secretion is copious and rapid. The accumulation in the bronchial tubes is greater than its expulsion by cough. This accumulation continuing to increase, dilatation necessarily follows, terminating ultimately in complete relaxation of the bronchial tubes and bronchial paralysis, with a very dangerous state of insensibility, or anæsthesia of the respiratory system of nerves, and those of the vaso-motor system distributed to the lungs. Under these circumstances, cough and expectation either decline or cease entirely.

In this class of cases, bronchial occlusion from mucous collection and paralysis is, if extensive, fraught with extreme danger, and is always the cause of intense dyspnœa. When perfect occlusion of a bronchial tube from the presence of a mucous plug occurs, the venous blood in the pulmonary capillaries distributed over its

mucous coat, remains fixed, and consequently charged with carbonic acid gas. This poison acts the part of a sedative on the respiratory and vaso-motor systems, as potent as aconite or veratrum, producing a state of anæsthesia, and ultimately paralysis of the muscular structure of the bronchi.

We often see grave cases of pneumonitis, in which there are extensive moist bronchial râles with very laboured breathing, much lividity of complexion, frequent, feeble pulse, with either very inefficient cough or its entire absence. While the râles are often loud and noisy, the patient is partially insensible to suffering, except from difficult breathing. Without prompt relief, these cases go on from bad to worse, the mucus accumulating in the bronchial tubes, dyspnœa and lividity continuing to increase, while the cough is not only suppressed, but the patient feels no desire to cough, and but little pain or inconvenience. In truth, at this stage of the case, there is a universal state of anæsthesia pervading not only the vaso-motor and respiratory system of nerves, but also affecting those of sensation and volition through the great nervous centres, from the presence of carbonic acid gas—an anæsthetic as effective, and far more deadly, than chloroform. Here is a cause of dyspnœa which must and will come under the observation of every practical physician.

TREATMENT OF BRONCHIAL OBSTRUCTION AND PARALYSIS.—There are two leading objects to be accomplished in treating these conditions—one, to stimulate bronchial action and relieve paralysis; the other, to remove excessive accumulation.

In relaxation of the bronchiæ and loss of sensibility, with defective expectoration when the mucus secretion is copious, but thin, inconsistent, and not tenacious, the free administration of nitric acid, combined with minute quantities of nux vomica and ipecac, constitute the most potent means of exciting bronchial expulsive action, and correcting this state of paralysis, which we have. The ipecac acts on the muscular coat of the bronchial tubes as a stimulant, causing active contraction and expulsion of contents. In this manner, cough and expectoration may be restored under al-

most hopeless circumstances. When this relaxation extends to the general system, and there is universal prostration and a tendency to debilitating perspiration, sulphuric acid and belladonna may be added to the treatment with advantage. When the mucous secretions are of the character spoken of, the mineral acids are specially adapted. On the contrary, when they are tenacious and adhesive in character, the acids are injurious, and the alkalies, particularly the preparations of ammonia, are peculiarly useful, as solvents, to aid in their expulsion. By the use of acids, we desire to curtail and diminish those copious secretions which endanger life by quantity. Hence, they are useful in a condition the opposite of that of the sthenic type, and are, therefore, only suited to states of debility and relaxation.

When the bronchial tubes are overloaded with thick, tenacious and adhesive mucus, while in a state of insensibility and paralysis, with inefficient cough, distressing dyspnoea and lividity of complexion, we must introduce an agent which can act as a solvent of this tenacious material, and, at the same time, use means to stimulate the dormant nervous powers concerned in the process of respiration, to expel the cause of obstruction. The alkaline agents, carbonate of ammonia and bicarbonate of soda, in combination with the wine of ipecac and tincture of nux vomica, unite all the medicinal properties requisite for these purposes. If the administration of ipecac is commenced in small doses and progressively increased, the stomach comes to tolerate very large quantities of the remedy, which acts decidedly and efficiently in connection with the other agents in causing free expectoration and the re-establishment of cough.

WEAK AND IRRITABLE HEART FROM NATURAL CAUSES THE MEANS OF PRODUCING DYSPNOEA IN PNEUMONITIS.—The natural strength of the muscular structures of the heart, and its force of contractile power, differ very widely in different individuals, without actually being a condition of disease. In many constitutions, the cardiac muscle is so attenuated in structure and feeble in action as to place the subject at decided disadvantage in an acute attack of pneumonia.

Much, in pneumonia, depends on a strong,

forcibly-acting, non-irritable right ventricle, with a steady and regular contractile power. Females and feeble men proverbially do not resist attacks of pneumonia as well as strong males. It grows out of the fact that the muscular structure of the heart in the former is weaker than in the latter, and the nervous powers also more feeble.

Just in proportion as the heart, in its organism and function, diverges from the average standard of strength, will there be difficulty, in the event of an attack of pneumonia, in sustaining the regularity of the pulmonary circulation, and in equal ratio will there be embarrassment of respiration. Thus, it is not difficult to understand why it is that in the case of two individuals with the same extent of local disease—one having a strong, non-irritable, slowly-acting heart, the other having a feeble, attenuated, excitable organ—the former will suffer so little and the latter so much from dyspnoea in pneumonia.

Probably one of the best evidences of cardiac weakness in pneumonia, is inordinate frequency of action. Just in proportion to the increase of frequency of action is there loss of strength and power. A heart acting at the rate of one hundred per minute, cannot sustain a column of blood, or, in other words, the body in a perpendicular position and the respiration at a normal standard, as long as one acting at the rate of seventy. In proportion also as the ventricular contractions gain in frequency and lose force, the power to sustain the pulmonary circulation declines, while venous blood accumulates in the lungs, causing extreme dyspnoea. Thus, when the rate of ventricular contraction reaches one hundred and thirty or forty per minute, they become so feeble in propelling force that the right ventricle fails to force the pulmonary circulation through, while the left ventricle, in not receiving its accustomed supply of oxygenated blood, fails to throw the arterial column with sufficient force to the systemic capillaries.

In this way, there is inordinate accumulation of blood in the entire venous system, and, consequently, excessive disturbance of respiration, with dyspnoea.

Now, if, by any means, the rate of cardiac

action can be restored to seventy or eighty in rate per minute, without impairing ventricular power, we will not only observe the capillary circulation moving on regularly through the pulmonary vessels, but blood aeration will be restored, and all dyspnœa relieved.

TREATMENT OF DYSPNŒA CAUSED BY WEAK AND IRRITABLE HEART IN PNEUMONIA.—The most important considerations for the relief of this condition are to slow the inordinate frequency of the heart's action, and at the same time not only not impair its force, but actually to increase cardiac power. The right ventricle, which, in these cases, makes extraordinary efforts to propel the column of blood through the obstructed lungs, being unequal to the task, becomes enfeebled, exhausted, and exceedingly irritable. To impart the wanted power of contraction, and to lessen irritability, we have at our command active agents, which exert an exceedingly energetic influence on the vaso-motor system—both having a tonic and sedative influence on the heart. These agents are digitalis, belladonna and nux vomica. By this combination, with the aid of stimulants and nourishment, the excessive action of the heart may be reduced to the normal standard, while the right ventricle receives ample power to sustain the pulmonary circulation, until resolution has been accomplished.

SOFTENING OF THE MUSCULAR STRUCTURE OF THE HEART A CAUSE OF EXCESSIVE DYSPNŒA IN PNEUMONIA.—Softening of the heart of an acute character is a far more frequent complication of pneumonia than is usually supposed. It may exist only in a slight or partial degree, when the muscular structure of the organ has lost but little of strength and elasticity, or it may pervade the muscular fibres to such an extent as to render them entirely friable, so as largely to deprive them of their contractile power. This condition of the heart, in various degrees of intensity, is not an unusual accompaniment of the malignant and adynamic types of pneumonia, and in all cases wherein there is a depreciated state of the blood.

Under these circumstances, the ventricular walls are greatly enfeebled, and rendered far less capable of forcible action or prolonged exertion under excitement, or when called

upon for the performance of unusual labour, as may be required to sustain the pulmonary circulation through the diseased lung. Attenuation and dilatation of the cardiac walls may prove an additional complication. Softening of the heart in pneumonia presents characteristics very similar to the same condition in typhoid fever. Cardiac action is exceedingly rapid and feeble. There is usually absence of impulse, or, if present, it amounts to a mere vibratory thrill. The systolic sound is generally absent, or very indistinct. Dyspnœa is always very distressing in these cases. The tendency to asphyxia is decided, as indicated by the lividity of complexion and tongue.

When the rate of cardiac action reaches one hundred and forty, the two sounds are merged into one—the systolic being lost. The respiration not unusually amounts to sixty per minute. In this class of cases, the equilibrium in the circulation between the arterial and venous systems is, for the time, lost—the larger proportion of blood accumulating in the latter, while the former is deprived of its proper supply.

The walls of the right ventricle, upon the vigour of which everything depends in pneumonia, contract rapidly, but with exceeding feebleness and inefficiency. That peculiar spiral character of ventricular contraction, which is prolonged, forcible and effective in propelling the column of blood onward through the lungs from the right to the left side of the heart, is lost, and there is substituted in its place a contraction which, from loss of power and excessive frequency, becomes concentric in character. In this manner, the right ventricle becomes incapable of fully sustaining the pulmonary circulation, while the process of engorgement progresses, causing the most intense degree of dyspnœa.

TREATMENT OF DYSPNŒA FROM CARDIAC SOFTENING IN PNEUMONIA.—The primary object in these cases is to slow the rate of cardiac action, and at the same time to strengthen the power of ventricular contraction, by the influence of those tonics and sedatives which act on the heart through the vaso-motor systems. The infusion of digitalis and tincture of nux vomica, in combination, will accomplish that

object better than almost any other agents, particularly when associated with nourishment and diffusible stimulants.

For the permanent improvement of the condition of the blood, which is always depreciated in these cases, the nutrition of the tissues of the heart, and the restoration of its impaired forces, the tincture of the chloride of iron, the solution of the acetate of ammonia, and arsenic, in the form of Fowler's solution, are all valuable. It will be seen that in the treatment of dyspnoea arising in this connection, we must look really more to the state of the heart and its action than to that of the lungs. As a rule, in these cases it will be found that in proportion to the restoration of the action of the heart towards a healthy standard of force and rate, difficulty of respiration will decline, and the case progress favourably.

In regard to the specific action of digitalis on the heart, there can be no doubt that it is directed with as much, if not more, force to the right ventricle than the left. This is clearly illustrated by its action in cases of excessive mitral constriction, with pulmonary engorgement and dyspnoea. Here the dilatation, impaired power and enfeebled action, and, not unfrequently, softening of tissue, are confined to the right ventricle. The digitalis, by its tonic and regulating influence on this ventricle alone, enables it to propel the pulmonary circulation through the constricted mitral orifice, relieving the engorgement and dyspnoea. By this influence, the right ventricle has acquired the additional force necessary to overcome the forward obstruction. This is a simple example of the action of the same therapeutic agent in the softened and impaired condition of the right ventricle in pneumonia, with excessive difficulty of breathing.

UNEQUAL ACTION OF THE RIGHT AND LEFT VENTRICLES A CAUSE OF EXCESSIVE DYSPNOEA IN PNEUMONIA.—In violent attacks of acute pneumonia of a genuine sthenic type, when the right ventricle, acting with inordinate power, and at an increased rate of frequency, propels with greater rapidity a much larger amount of venous blood into the pulmonary vessels than they can carry through into the left auricle, there results a highly deceptive state of affairs.

In these cases, by excessive action of the right ventricle, the cardiac impulse becomes exceedingly violent and forcible; the dyspnoea is very great, and the temperature high; while the radial pulse, though accelerated, is apparently, in its softness and feebleness of character, entirely disproportioned to the violence of type of the other symptoms. In such cases, there is active and extreme engorgement of the pulmonary circulation; and in a former generation, when phlebotomy was fashionable, medical men were wont to bleed, knowing that, in proportion as venous and pulmonary congestion was relieved, there would be developed strength and force in the radial pulse.

TREATMENT.—In this class of cases, the action of those cardiac sedatives—aconite and veratrum viride—by their direct and prompt influence on the inordinately excited right ventricle, slows and regulates its action towards a normal standard, permits the congested lungs to disgorge their excess of blood, and the left ventricle to receive its full share of the circulating current. In this manner, while the violence of cardiac impulse and excitement are allayed, the dyspnoea is relieved, and the pulse is both slowed in rate and increased in force. In weak and irritable hearts and in softening of the heart, inducing impairment of its force in pneumonia, attended with dyspnoea, we need a cardiac slower, with tonic powers, such as digitalis, to reduce frequency of action and give ventricular strength. In violent action of the organ with too much power, but also dangerously affecting the respiration, we need also a cardiac slower, but with sedative properties, as the aconite.—*Vir. Med. Monthly.*

IRON AND DIGITALIS.—It is often very desirable to give these remedies together. A common way has been to administer the ammonio-citrate of iron and tincture of digitalis. According to Mr. F. Y. Livy, however, in the *British Medical Journal*, a mixture of tincture of muriate of iron, tincture of digitalis, and dilute phosphoric acid, is the best formula. The acid prevents the formation of a tannate, and is useful in case there is any stomachic disorder. We have tried the above mixture, and find it without precipitate, as described.

THE GULSTONIAN LECTURES ON
EPILEPSY.

BY W. R. GOWERS, M.D., F.R.C.P.

The treatment of epilepsy is a subject on which numerical analysis gives little help. A large number of cases are under observation too short a time to enable the effect of remedies to be fairly estimated; and of the cases in which benefit is derived, we have no means of ascertaining how many relapse when treatment is discontinued. My notes of the result of treatment in this series of cases extend to 562 cases only. In the remainder, either the period of observation was too short for a just conclusion to be drawn, or, in the press of out-patient work, the influence of remedies was not noted with sufficient precision. The effect of treatment is more likely to be recorded when it is distinct and considerable, than when it is slight. Hence the following figures have no relative value. Of the 562 cases, the attacks ceased while the treatment was maintained in 241; doubtless many of these relapsed when treatment was discontinued, but in a few I have been able to ascertain that the patients remained free from fits even for years after they ceased to take medicine. In 266 cases, improvement short of arrest was obtained; the fits being reduced in many to $\frac{1}{20}$, $\frac{1}{30}$, $\frac{1}{50}$, and even $\frac{1}{100}$ of their former frequency. In 55 cases, little improvement was obtained by any method of treatment.

Time forbids me to enter at length on the details of treatment, and I can do little more than mention the remedies which in this series of cases were of most distinct service. The subject of possible modes of action it is better to leave almost untouched. It may be doubted whether a rational therapeutics of epilepsy is yet possible. At any rate, up to the present time, remedies used empirically have been of most service.

Although the results show that we must not only rely exclusively upon bromides in our treatment of epilepsy, they show also, as might be expected, that on these our chief trust must still be placed. Of the arrests of fits, 66 per cent., and of the improvements short of arrest, 62 per cent., were due to bromides given alone.

Of the three alkaline salts of bromine, that of potassium deserves, I think, as it has popularly received, the first place. I have made a careful comparison between the salts of sodium and of potassium in a series of about fifty cases, substituting the one for the other. In a few cases the sodic salt appeared to do better; in the great majority it was distinctly less useful. Bromide of ammonium possesses slightly more power than bromide of potassium; but this is not greater than the larger quantity of bromide it contains will account for.

The period after its administration at which the maximum effect of a dose of a bromide is obtained varies, I believe, with the dose. The larger the dose, the longer is the maximum effect deferred; the smaller the dose, the sooner does it occur, and the sooner is its action over. When small doses are employed in cases in which attacks occur at regular times, they should not therefore be given more than two or three hours before the attack is expected. This is contrary to some opinions which have been expressed; but I have several times known attacks arrested when a dose was given about two or three hours before the fit was expected, which were not arrested when the dose was given twelve hours earlier.

The effect of bromide upon fits appears to be for a time cumulative, just as is, indeed, its action in causing bromism. Attacks may continue under its administration for a time, and yet ultimately cease without any increase in the dose. On the other hand, still later, tolerance or rather indifference may be established, and attacks which have been for a time arrested may ultimately recur.

Drugs which increase reflex action, such as strychnia, are now believed to do so by lessening the resistance in the nerve-centres involved. Bromide diminishes reflex action, antagonises strychnia, and it is probable that it does so by increasing the resistance in the centres. If the view above expressed is correct, that the morbid state in epilepsy is essentially an instability of the resistance in the cells, it is also probable that bromide of potassium acts by increasing the stability of this resistance.

Bromide is commonly administered in a continuous course, in such moderate doses as will

just suffice to keep the fits in check. Given thus, it needs to be given frequently. I have more than once observed that a daily quantity which, given in two doses, did not quite arrest the fits, arrested them completely when given in three doses. If, therefore, the greater convenience of infrequent doses—one or two daily—be preferred, a somewhat larger quantity must be given.

When the bromide is thus given continuously, it has not seemed to me desirable to increase the daily dose beyond a drachm or a drachm and a half. If this do not arrest the fits, I have rarely found that larger doses succeed so well as the combination of bromide with other drugs. But it is, I think, open to question whether the method of administration, using doses only just sufficient to arrest the fits, is the wisest in all cases. If bromide cure epilepsy, as without doubt it does sometimes, it must be by effecting a nutritive change in the nerve-cells corresponding to its action, whereby they are rendered permanently more stable. That it, or any other drug, does good by influencing the vascular state of the brain, appears to me to be improbable. Even if such were its action, we are only driven back to a similar influence in increasing the stability of the cells of the vaso-motor centre. There are, I think, many grounds for the belief that the change in the nutrition of the cells may be produced more effectually by subjecting the patient for a time to the full influence of bromide, giving doses much larger than are needed to arrest the fits, in the hope of producing more readily a permanent nutritive change. In giving bromide thus, I have preferred large doses at intervals of two or three days, gradually increasing the dose until it is as large as can be well borne, and then diminishing it. The largest single doses which I have given in this way have been doses of one ounce. This, in some patients, produces slight stupor, sometimes reaching its maximum on the second day after the dose. In other cases, it produces very little disturbance beyond headache. From the marked difference which patients present in their tolerance, it is not well to begin this method of treatment with a larger dose than four drachms.

The value of the various combinations of the

bromide with other drugs was tested, as far as possible, on an uniform plan. First, bromide was given alone for several months, and the additional drug was added to the same dose of bromide, and the result watched for several months longer. Of the various combinations which are in common use, those with digitalis and belladonna unquestionably deserve, as they have commonly received, the first place. Digitalis is one of the oldest remedies for epilepsy. It was recommended by Parkinson two hundred years ago, and has been perhaps for a still longer time a popular remedy for this disease in certain rural districts in the West of England. I have met with no case in which, given alone, digitalis arrested the fits for more than a few months, but in several cases it effected very distinct improvement. The combination of digitalis and bromide, however, was distinctly more useful than bromide only, in no fewer than sixty-three cases. In more than half of these, thirty-seven cases, the attacks ceased under its use, although they had continued under bromide alone. In the cases in which cardiac disturbance was associated, the combination was almost always superior to bromide alone; but its use is not confined to these cases. Many cases of nocturnal and other forms of epilepsy yielded to the combination, although the attacks had continued under bromide, and this when there was no evidence of cardiac disease. I know of one patient with nocturnal epilepsy who, for two years, under this combination, has not had a single fit, although the attacks occurred every few weeks with bromide only.

In rare cases, belladonna alone will arrest attacks. I have met with only one case in which attacks, which continued on bromide, ceased entirely when belladonna was substituted, and this was a case with hystero-epileptic symptoms. The combination of bromide and belladonna, however, was distinctly better than bromide alone in thirty-five cases, and in fifteen of these arrest of the fits was thus obtained.

Indian hemp was first employed in epilepsy by Dr. Reynolds, and is sometimes of clear value. In one case, the attacks were invariably arrested for many months by its use, recurring only when the patient ceased attendance; but twice, on his resuming attendance, the drug in-

stantly arrested the attacks. When bromide was substituted for the Indian hemp, the attacks at once recurred. Combined with bromide it is also sometimes useful, and seems to exercise most influence over attacks in cases in which there is persistent headache. The same fact has seemed true of the combination with gelseminum.

The use of opium in epilepsy has long been advocated by Dr. Radcliffe, and in some cases is certainly effective. The combination of bromide and morphia I have rarely found to present special advantages. In the status epilepticus, in which attacks occur with great frequency and severity, and where bromide, even in large doses, was useless, I have found small hypodermic injections of morphia of great service.

The combination of bromide with aconite and hydrocyanic acid I have also tried, and found in some cases slightly better than bromide only. The addition of iodide to bromide has been lately said to increase its effect. Occasionally this is true, and in four cases of the series the combination was distinctly better than bromide only, but in many other cases it was ineffective. Even in the cases on the subjects of inherited syphilis, it has not appeared of special value.

• Zinc unquestionably deserves some of the repute it has enjoyed for more than a hundred years as an anti-epileptic. Of the cases of this series in which it was employed, it was distinctly useful in ten, but in only three did the attacks cease. In three other cases, attacks which continued under bromide ceased under bromide and zinc; and in a fourth, they ceased under zinc, digitalis, and bromide. The oxide of zinc was the form commonly employed. Its nauseating influence constitutes a serious drawback to its use, as toleration is difficult to establish, and I have rarely succeeded in giving more than twenty grains a day. Bromide of zinc has seemed of small value, and is borne badly. The addition of arsenic to bromide in no case produced any marked effect on the attacks. It was used in a large number of cases on account of the readiness with which, it was found, the bromide rash could be prevented by its use.

Bromide of camphor, highly praised by Bournville, was tried in a considerable number of cases without any good results. Turpentine

has been recommended by Dr. Radcliffe, and I have seen it produce very striking benefit, but only in cases of hystero-epilepsy.

The use of iron in epilepsy has been discounted by high authorities, on grounds which are not altogether beyond question. In rare cases it increased the frequency of attacks; in the majority of cases in which it was used, it was borne without any ill result; in many, the addition of iron to bromide was attended with a marked and permanent improvement, and in some cases iron alone arrested the fits. The series includes four cases which ceased under iron only, and eight others in which iron alone was distinctly better than bromide, and nineteen cases in which the addition of iron to bromide exercised a marked influence. In no fewer than eleven cases, attacks, which persisted on bromide, ceased on the addition of iron, and remained absent as long as the treatment was continued.

In several inveterate cases of epilepsy, in which bromide had no effect, I have tried borax. In some cases it did no good, but in twelve its value was most distinct. I may mention one or two. In one, fits which had continued on bromide and on zinc, ceased entirely on borax for three months, and then only recurred when the medicine was discontinued. In another case, the fits continued (about one weekly) during three months' treatment on bromide and on belladonna. Borax was then substituted, the fits at once ceased, and for five months the patient had not a single fit; then he had one in each of the two following months; the dose of borax was increased, and up to the present time (eight months later) no other attack has occurred. In a third case, one or two attacks occurred once a fortnight on bromide. Borax was substituted, and for five months the patient had not a single fit. The doses given have been ten to fifteen grains, twice or three times a day. It produces in some patients gastro-intestinal disturbance, and, rarely, a form of dysenteric diarrhoea. By others it is well borne, and one of my patients has taken forty-five grains a day for twelve months without the slightest inconvenience, and says that no medicine has ever done him so much good. In cases in which bromide fails, borax certainly deserves a trial.

The use of *cocculus Indicus* in epilepsy, recommended by Dujardin-Beaumetz, has lately attracted attention in consequence of the recommendation of Planat. I have tried the alkaloid picotoxine in a few instances, but in only one case has it appeared to do good. My own experience of its use has, however, been small; and I am very much indebted to my colleague, Dr. Ramskill, for permitting me to mention some interesting results which he has obtained by the hypodermic injection of picotoxine. His experience of its effect on the fits when given through the skin is nearly the same as my own of its employment by the mouth. In seven cases in which it was injected, in daily doses of from one to four *milligrammes*, no beneficial result was obtained; in most cases, indeed, the attacks were rather more frequent and severe. Of course, we are not justified in assuming that the effect of picotoxine and of the *cocculus Indicus* itself are identical. A very interesting fact has, however, been ascertained by Dr. Ramskill, viz., that picotoxine in larger doses of from fifteen to eighteen *milligrammes* will almost invariably produce a fit in twenty or thirty minutes. In one patient, for instance (according to the notes of Mr. Broster, who carried out the experiments), the dose was daily increased, and, when more than five *milligrammes* were injected, a sensation of giddiness followed, similar to that with which the attacks commenced. The same effect followed larger injections, and, when the dose reached eighteen *milligrammes*, a severe attack occurred thirty minutes later, and an attack always followed the injection of this dose. In another patient, a similar progressive increase of the dose was followed by giddiness and headache when eight *milligrammes* were injected. When the dose of fifteen *milligrammes* was reached a severe epileptic fit followed. Next day a second dose of fifteen *milligrammes* did not cause a fit; but eighteen *milligrammes*, two days later, caused a fit in half an hour. After a week's intermission, twenty-four *milligrammes* were injected, and a severe fit occurred in twenty-five minutes. In a third patient, a fit occurred after one injection of eight *milligrammes*, but ten *milligrammes* next day caused no fit. Fifteen *milligrammes*, however, were followed by a fit in thirty min-

utes, and a second injection of the same dose the following day caused a fit in fifteen minutes. Seventeen *milligrammes* next day caused a fit in thirty minutes. In a fourth patient, a single dose of eighteen *milligrammes* caused, in ten minutes, giddiness and slight dazzling before the eyes, and in thirty minutes there occurred the usual aura of an attack: a sensation of something creeping up the right arm to the top of the head, and numbness and twitching in the right thigh, but no fit followed, although the patient was stupid and dull for a time, just as after a fit.

Among other drugs which I have tried and found useless, I may mention benzoate of soda and nitro-glycerine. In hystero-epilepsy, bromides, sometimes useful, fail entirely much more frequently than in simple epilepsy; and the combinations with digitalis and belladonna are also less frequently useful. Iron, especially when guarded by aloes, is often of the highest value, quite apart from the existence of anæmia, and, next to it, valerianate of zinc, morphia, and turpentine.

High authorities have urged on different grounds that the diet of epileptics should contain little or no animal food. In a few observations which I have made by keeping a patient under unaltered medicinal treatment for alternate periods, on a diet with and without animal food, I could observe no difference in the attacks, except that in one patient they were slightly more frequent in the periods when animal food was excluded; and in one patient, hystero-epileptic attacks on ordinary diet became, when meat was excluded, severe epileptic fits, and again became hystero-epileptic when animal food was restored.

In pure epilepsy, the only treatment during the attacks is such care as shall secure the patient, as far as possible, from injury. It is very different with the attacks of hystero-epilepsy, which, from their character, severity, and long duration, often furnish the attendants with a task of no small difficulty, and which can, almost always, be cut short by appropriate treatment. The patients often hurt themselves during the attacks, and some control is absolutely necessary. But, as already stated, restraint tends to increase the violence, and makes the paroxysm last longer. Hence considerable

judgment is often required, so to adjust control as to be efficient and not too much. I have seen these patients put within padded partitions and left alone, but I have never myself found this necessary.

The slighter attacks can be arrested by closing the mouth and nose with a towel for thirty seconds, after Dr. Hare's method. The profound effect on the respiratory centre, and the related higher centres, caused by the anoxæmia, seems to arrest the convulsive action. Cold water over the head is often successful if applied freely; in severe attacks, a moderate quantity only excites redoubled violence, while a second gallon is often more effectual than the first. This has the disadvantage of drenching the patient's head, and often giving cold. When the mouth is open during attacks, a small quantity of water poured into it is often effectual. A much more convenient and more effectual remedy than water, however, is strong faradisation to the skin; applied almost anywhere, it will commonly quickly stop the attack. Of ovarian compression I spoke in a previous lecture. In this country, it is rare that ovarian pressure will arrest an attack. In some cases, all these means fail, even when thoroughly used, and I have known such attacks go on, in spite of skilled treatment, for several hours. Chloroform is of little use; its administration is a matter of extreme difficulty, often impossibility, and the attack is commonly renewed when the influence of the anæsthetic passes off. The remarkable effect of nausea in relaxing spasm led me some years ago to try the effect of injections of apomorphia, and I have found in it an unfailing means of arresting the attacks. After the injection of a twelfth of a grain, in four minutes with certainty all spasm ceases, and normal consciousness is restored; in six minutes the patient will get up and go to the sink; in eight minutes will vomit, and afterwards, except for slight nausea, is well. A twentieth of a grain has the same action, but is rather longer in its operation. Moreover, I have found that the treatment is, so far as the hysteroid symptoms are concerned, curative as well as palliative, for the attacks in many cases ceased after a few paroxysms had been thus cut short.

I regret that, in this survey of some points in the clinical history of these diseases, it has been necessary to omit all reference to many facts regarding symptoms, diagnosis, and prognosis, which are presented by the series of cases analysed. I am conscious that, as it is, in the details I have introduced, I have made a large demand upon your patience. But it is only by ascertaining the facts of these diseases that we can hope to learn their nature, or to find the guidance in our efforts at prevention or at cure.

Whatever may have been the nature of the demoniacal possessions of old, few who have watched an epileptic fit can doubt that they have their representatives among us still. The old power of casting them out has gone from the earth; and it is only by the study of their origin and history, and careful experiment in their treatment, that we can hope to regain over them such power as may still be possible to man. And the present generation has witnessed an advance in the treatment of these diseases, equalled in perhaps no other branch of therapeutics. Thanks to the influence of one drug, the use of which in epilepsy is due wholly to the Fellows of this College, hundreds of epileptics have been cured, and thousands are leading useful lives who would otherwise have been incapacitated by the disease. Although the condition of many sufferers is still gloomy enough, it is not without hope, and to them also, we may surely trust, the progress of the recent past is the dawn of a brighter day.—*British Medical Journal*.

PERNICIOUS ANÆMIA: CIRRHOTIC CONTRACTION OF THE STOMACH AND DISAPPEARANCE OF THE GASTRIC FOLLICLES.—*Nothnagel* (*Cbtt.*, January 31) reports a case, in a shoemaker, aged 23, who had suffered nine years from nausea, vomiting, anorexia, flatulence, and a feeling of fulness in the epigastrium. In May, 1878, he presented himself with symptoms of progressive anæmia. In spite of transfusion, the patient died.

On post-mortem the body presented a general pallor; in many of the internal organs blood was found. The stomach was 5 inches long and 2½ inches wide. Its walls, especially towards the pylorus, were greatly thickened and grated on cutting.

Microscopic examination showed the absence of the follicles in the vicinity of the cardiac orifice and a scantiness of vessels owing to the development of fibrous tissue.

MALT EXTRACT, AND DIGESTION OF STARCH.

The *Medical Record* of March, 1880, quotes from the *Practitioner*, December, 1879: "Dr. Roberts, of Manchester, England, gives the results of his investigations on the subject of the digestion of starch. He says that in infants under three or four months of age saliva has a feeble, diastatic power; further, he has ascertained that the pancreas of sucking calves does not possess any diastatic power, and that it is fair to presume that the pancreas of the infant at the breast is in the same condition. For this reason farinaceous food cannot be digested by young infants, unless some artificial means be employed. Malt extracts being infusions of malt concentrated to the consistency of syrup or molasses, by evaporation (containing no more value as food than an equal amount of syrup), the diastase exists only in small quantity. As to malt infusion, it possesses powerful diastatic properties. It is made as follows: Three ounces of crushed malt are very thoroughly mixed in a vessel containing half a pint of cold water; the mixture is allowed to remain from twelve to fifteen hours, and then passed through filtering paper until it comes through perfectly bright. It is rich in diastase, and contains maltose in considerable quantity. As it is subject to fermentation, it should be freshly prepared each day, or it may be preserved by adding a few drops of chloroform to the infusion and keeping it well corked. Dr. Roberts thinks that the malt preparation will prove of more service if taken with the food than after the meal, as, by so doing, it will become thoroughly mixed with the food. An excellent way of administering malt infusion is by adding one teaspoonful to half a pint of gruel. In conclusion, he speaks of the liquor pancreaticus, made by infusing one part of fresh pancreas with seven parts of water; this was found to possess twenty times the diastatic power of the malt infusion alluded to."

CASTS OF THE URINIFEROUS TUBULES—THEIR NATURE AND CLINICAL SIGNIFICANCE.—James Tyson, M.D., Professor of General Pathology and Morbid Anatomy in the University of

Pennsylvania, thus concludes a paper published in the *Philadelphia Medical Times*:

1. Hyaline casts are found in all forms of Bright's disease, as well as temporary congestion of the kidney, active or passive.

2. Epithelial casts are found in acute, sub-acute, and chronic parenchymatous nephritis. In the latter two forms the cells are generally degenerated and fragmentary.

3. Blood casts are found in acute parenchymatous nephritis, and where hemorrhages have occurred in the kidneys.

4. Pale granular casts are found in interstitial nephritis (contracted kidney) and chronic parenchymatous nephritis.

5. Dark granular casts are found in parenchymatous nephritis, acute and chronic, and rarely in interstitial nephritis.

6. Waxy casts are found only in chronic Bright's disease, and attend either of the three principal forms.

7. Oil casts are found in sub-acute and chronic forms of Bright's disease, and attend either of the three principal forms, but are most numerous in chronic parenchymatous nephritis (fatty kidney).

8. Free fatty cells and free oil-drops are found in chronic parenchymatous nephritis.

9. The form of fatty cell known as the compound granular cell is found in acute and chronic parenchymatous nephritis.—*Ohio Recorder*.

THE SPIRILLA-SPIROCHÆTES.—It has been pretty conclusively proved by Obermeier that relapsing fever is due to the entrance into the blood of this minute air-born vegetable organism. In further proof of this, we are informed by the *London Medical Record*, January 15th, 1880, that Vandyke Carter, in India, has injected under the skin of monkeys defibrinated blood proceeding from patients suffering from relapsing fever, and which contained spirillæ. On the sixth day the monkeys were attacked with violent fever, and the blood was filled with spirillæ. Cohn, of Breslau, has further cultivated this spirillum in successful culture-fluids outside of the body, and reproduced feverish attacks with the third or fourth culture-fluid.

Surgery.

TRACHEOTOMY IN DIPHTHERIA AND CROUP.

BY GEORGE BUCHANAN, A.M., M.D.

Professor of Clinical Surgery in the University of Glasgow.

The following case is recorded, because it affords some lessons which can never be too often enforced. In speaking of my experience in tracheotomy, I have sometimes been met with the observation, that no doubt some of my cases have been examples of simple spasmodic croup, and that, if I had waited longer, the fits would have passed off and the child recovered without operation. But, in reply, I can say that in most if not in all the cases the child was approaching or had actually arrived at a stage when life could no longer be supported without an additional supply of air to the lungs, whatever was the cause of the necessary quantity being prevented from entering. Secondly, simple spasmodic croup, or *laryngismus stridulus*, is a very rare affection; indeed, I have never seen it among the cases of approaching suffocation to which I have been called. Thirdly—and this is the point on which I wish to insist, because it is of practical importance—in all cases of croup and tracheal diphtheria there is an element of spasm, intermittent, sometimes with long intervals of relief, which leads to the belief that the obstruction is not permanent, but only occasional, and often causes the operation to be too long delayed. As the disease advances, the spasms become more frequent, and end in a continuous obstruction, which then, but often too late, is recognized as depending on mechanical narrowing of the trachea.

Of course, it is familiarly known that the suffocation of croup and diphtheria may depend on two different conditions. First, it may be caused by the obstruction being situated in the trachea and larynx; second, it may depend on the viscid secretion extending down into the bronchi and smaller bronchial tubes, thus stuffing up the lungs and preventing either the free ingress or egress of air. To either of these conditions the element of spasm may be added; and, as this is often the most prominent and alarming feature, it may mask either of the

other two, or render it difficult to decide which is the real essence of the disease.

But I have long ago pointed out a diagnostic mark which cannot be too frequently insisted on and promulgated, and which is the only true means for enabling us to decide when tracheotomy is justifiable and when it is *not*—viz., the respiratory movements as seen by observing the naked chest. When the obstruction is situated in the trachea or larynx, the lungs remaining normal, the efforts of the child to obtain breath are painfully visible by the powerful drawing inwards of the ensiform cartilage, the intercostal spaces, and every elastic part of the chest-wall; showing the thirst for air, and the capacity of the lungs to receive it, if only it could gain entrance. But when the smaller bronchial tubes are full of viscid and perhaps pseudo-membranous effusion, the movements of the chest-wall are impeded; the chest is puffed out like one affected with chronic emphysema of the lung, and heaves in a mass with difficulty.

In the first of these cases, tracheotomy affords instant relief—often permanent—and ultimate saving of life; in the second, if unfortunately it be performed, it affords at best a temporary and short interval of repose, if even that, and only when the element of spasm is present.

It will be seen that in these few remarks I have avoided all reference to the disputed question as to the identity or non-identity of croup and diphtheria. I leave that to those who, as general practitioners, see the diseases in their early stage. As a surgeon, I am only concerned with cases in which it is probable that tracheotomy may be required. My remarks apply to all cases, whatever may be the original malady, in which it appears nearly certain that the patient will die of *suffocation* from *obstruction* situated in the *larynx* or *trachea* unless a free supply of air is obtained by tracheotomy. And I have before given the diagnostic mark on which I now invariably rely in determining whether to perform or refrain from performing tracheotomy.

I shall now give a short report of my last case. Peabody Grierson, a boy aged 8, in previous good health, a stout well-formed boy, on Saturday, November 15th, 1879, began to complain of his throat, with a slight tickling cough coming at intervals, with some slight feeling of

choking. On Sunday, the 16th, Dr. Pirie was called, who detected incipient croup by the fever, flushed face, pain in the neck, and a crowing sound with the cough, which came at intervals. Ipecacuan, mustard blisters, steam in the apartment, were kept up till Monday at 8 A.M., when I saw the patient with Dr. Pirie. The spasms, though severe, were not frequent; and in the intervals the breathing was fairly normal, so we determined to delay changing the treatment for some hours. In the afternoon it became quite evident that the spasms, which were becoming more frequent and severe, were only the reflex effect of a permanent obstruction in the trachea. At no time was there any inflammation, swelling, or false membrane to be seen on tonsil, palate, or fauces. The agony of the little sufferer was very painful to witness, and the diagnostic mark of the powerful indrawing of the intercostal spaces was as characteristic as I ever saw it. I sent for Dr. Pirie, and drove home for my instruments and an assistant; and by the time I got back the case was indeed urgent. In fact, it seemed as if we were too late. The lips were livid; the face pallid, and covered with a cold sweat; the pulse flagging; the breathing very laboured; the eyes staring, open, and glazed; in fact, the child seemed *in articulo mortis*, and I said to his mother that I feared it was too late. I have rarely heard a more piteous appeal. The mother was an intelligent woman, who had been educated as a nurse in Guy's Hospital, and had afterwards come to Glasgow Royal Infirmary, where she for several years had charge of my emergency ward, and where she nursed for me, to a successful termination, one or two cases of tracheotomy. She said: "I see by your face that there is little encouragement to operate; and, if you think there is no hope, do not do it; but, if you think there is any chance of success, as death is fast approaching, for the love of God, try to save my boy."

I operated without chloroform, as the child was rendered almost insensible to pain by the carbonization of the blood. The white rings of the trachea were rapidly exposed in the bottom of the wound, and a free incision was made into the tracheal tube. This was followed by the usual result—a struggle, a forcible expiration,

during which shreds of tough membrane and viscid mucus were expelled. Presently the breathing became quiet. During this time, the lips of the wound in the trachea were held apart by the opened blades of a dressing-forceps. The silver tube was easily introduced, and the little patient was left breathing calmly and easily.

He remained very well during the night; but next morning, at 7 o'clock, I was called. The breathing through the tube had become rather obstructed and whistling: the inevitable sign of a dryness of the tracheal secretion. I passed into the tube a soft feather well moistened with tepid water, and mopped out the lower end of the outer silver tube and the trachea itself, when a convulsive cough took place, and a large piece of a membranous cast of the trachea was expelled through the tube with great force. I now directed the mouth of the tube to be kept constantly covered with a bit of honeycomb-sponge wrung out of hot water, which I find by far the most effectual way of moistening the entering air. After this there was no more trouble with the case. The tube was removed on the eighth day, and the child made an excellent recovery.

STATISTICS OF TRACHEOTOMY.—I have now performed this operation for croup and diphtheria fifty times. I have entered as cases of diphtheria all such as had an effusion of white false membrane on the tonsils, palate, or fauces.

Total tracheotomies, 50; cured, 19; deaths, 31.
Tracheotomy in croup, 17; cured, 7; deaths, 10.
Tracheotomy in diphtheria, 33; cured, 12; deaths, 21.

RESULTS.—Taking the whole of the cases, the result is, that nearly *two* out of every *five* operations were successful; and, as the operation was never performed unless there was no hope of recovery otherwise, it may be fairly stated that the lives of these nineteen children were *saved* by tracheotomy.

The primary object of the operation is to prevent death from obstruction at the entrance of the air-passages. Opponents of surgical interference are very much in the habit of speaking as though the operation had ever been proposed for the treatment of croup, and that consequently it was discredited altogether if the

patient died. It can never be too forcibly impressed on the professional as well as on the public mind, that the primary object of the operation has nothing whatever to do with the progress of the disease. It is only proposed for the purpose of meeting one of the complications—certainly the most fatal—namely, stenosis about the larynx. If that complication be met and overcome, the operation deserves full credit, even though the patient may subsequently succumb to influences which surgery may be powerless to encounter. The surgeon who is called upon to catheterise in a case of retention of urine in fever, does not even dream that he is thereby treating the general disease. He who has to puncture the bladder in a case of acute retention in stricture or enlarged prostate, does not think that he thereby treats those affections. He only interferes to relieve a symptom which he knows will be fatal unless operation be resorted to, and he would not feel himself justified in blaming the procedure because the patient might subsequently sink under the original disease. But this is the style of argument generally used against us when we lose a patient who has been operated on.—*British Medical Journal*.

POINTS IN THE SURGERY OF THE URINARY ORGANS WHICH EVERY PRACTITIONER OUGHT TO KNOW.

At the meeting of the Harveian Society of London, April 15th, 1880, Mr. Teevan read a paper on the above subject, an abstract of which was published in the *Medical Press and Circular*, April 28th, 1880:—

The *first point* he brought before the Society was, that retention of urine in children is always caused by a stone, unless there is some mechanical obstruction to the escape of urine, such as a contracted meatus or tight foreskin. *Second Point*.—That incontinence of urine which is diurnal as well as nocturnal, may be caused by a calculus impacted in the deeper portions of the urethra. He explained how it was that in one case a stone would give rise to retention, and in the other to incontinence. When a calculus was at the meatus internus it was accurately and firmly embraced by the sphincter, so that no

urine could escape. When, however, the stone advanced half an inch further forward, it acted as a gag and prevented the sphincter from closing, so that the water dribbled away along the sinuosities in the calculus. *Third Point*.—That incontinence of urine in boys may be caused by a congenitally-contracted meatus. If the urine could not escape freely in the act of micturition, reflex irritation was set up, and dribbling took place. *Fourth Point*.—That dribbling of urine in men signifies retention, not incontinence. He explained the apparent paradox, showing how in cases of enlarged prostate or stricture, the patient always left some urine behind after each act of micturition, which gradually accumulated, the over-distended bladder not being able to contract on its contents, the action of the sphincter being still perfect. At last, however, the sphincter became weakened a little by great pressure, and leakage followed, so that urine was always dribbling away. *Fifth Point*.—That if, when a catheter was passed in a man, the urine was expelled with great pain and violence, not only through the instrument, but in streams by its sides, there must be a calculus impacted in the deeper portion of the urethra. *Sixth Point*.—That it is not possible to empty every man's bladder with a catheter, as the organ is sometimes sacculated. *Seventh Point*.—That a gleet of more than six months' duration means an incipient stricture. *Eighth Point*.—Behind an enlarged prostate always suspect a stone, as there are in that complaint all the conditions present for the local formation of calculus. *Ninth Point*.—If a man who complains of painful and frequent micturition is worse in the day than at night he most likely has a stone. Prostatic cases were much worse at night than in the day, whereas calculus patients were most comfortable while in bed, but when they moved about in the day they suffered greatly from the movements impressed on the stone. *Tenth Point*.—When a man who complained of frequent and painful micturition was much worse when riding in a vehicle or on a horse, he most probably suffered from stone. The explanations in the former point applied exactly to this also. *Eleventh Point*.—Before delivering a child, see that the mother's bladder is empty. *Twelfth Point*.—If a woman had retention of urine after childbirth, she ought to be relieved with an elastic olivary catheter, the interior of which was completely filled by a bougie. For the want of this precaution the catheter often became plugged with mucus, and cystitis was set up by the nurse's ineffectual attempts to withdraw the urine.

SENILE CHANGES IN BONES.—Dr. Humphry, in illustration of the subject of so-called Senile Changes, showed, at the Cambridge Medical Society, a specimen of fractured neck of the femur, taken six weeks after the injury, from a woman aged seventy-six. A longitudinal section showed the bone to be well and firmly united, a result owing partly to impaction. He doubted whether the reparative process was enfeebled by old age apart from other causes. He showed also the other femur, which did not bear out the prevalent view that the angle of the neck becomes less in old age. No doubt the angle of the jaw altered as the teeth disappeared, and the curve of the back yielded as the back muscles became weaker; but he knew of no evidence that any of the long bones altered. He had lately, with the help of Dr. Anningson, made a number of measurements of the angle at the neck of the femur at different ages, and he found that, in a series of bones from middle-aged subjects, the angle varied from 125° to 133° , and in a series from aged subjects, it varied within the same degrees. In the femur of a woman aged 103, the neck had as wide an angle as that of a young person. Dr. Humphry showed also, from the same case, the cartilages of the ribs, which were soft to the knife and uncalcified. He considered calcification of the rib cartilages to be a morbid phenomenon, and not incidental to old age as such. In the case of old Parr, who died at the age of 153, Harvey observed the costal cartilages were quite soft to the knife; and it is probable that in every very old person they remain uncalcified. The significance of calcified costal cartilages is rather that the individual will *not* live to a very advanced age. In very old people there are not many appearances of disease of any kind—very few, in fact, of what are called “senile changes.” The heart and aorta from the same case showed only slight traces of atheroma; and he would include atheroma of arteries as another so-called senile change which was not proper to old age as such.—*London Lancet*.

AN UNDESCRIBED FRACTURE OF THE FIBULA.—M. Duplay recently brought before the *Société de Chirurgie*, of Paris, two cases of an undescribed form of fracture of the upper extremity of the fibula (*La France Médicale*). Both the men had been caught in a leather driving

band. Above the situation of the upper end of the fibula was a bony projection contiguous to the tendon of the biceps, and immovable. Below there was a manifest depression. There was then detachment of part of the head of the fibula. The diagnosis was very clear in both cases. In one case, at each turn which the driving band caused him to make, the outer side of his leg struck against the wall. In one of them, who had many fractures, there was complete paralysis of the extensors of the foot and the lateral peroneals, dependent on a lesion of the external popliteal. The second patient died suddenly, without our being able to find, at the autopsy, the cause of death. We had not had time to remark in him paralysis of the muscles of the antero-external region of the leg. In the specimens exhibited from this patient, the nerve is seen to turn round the fracture of the bone, so that it must have been included in the lesion. In the first patient it is probable that osseous union will be impossible, but that nevertheless the functions may be re-established; it does not appear likely to be the same with the paralysis. The patient left the hospital some months after with the paralysis remaining, and has been heard of since as being in the same state.—*Medical Press and Circular*.

NEW METHOD OF PLUGGING THE POSTERIOR NARES.—Dr. J. M. Spear, in the *Medical and Surgical Reporter*, suggests that probably the best impromptu device for this operation consists of a piece of round fine-linked gold chain, slightly flexible and smooth, about one-tenth of an inch in diameter and an inch or more long, attached by one end to a fine waxed silk cord, a foot or more long. If such a chain be not procurable, a short string of metallic cylindrical beads, or bird shot, compressed on a cord, or small strips of sheet-lead wrapped on a cord, might answer the purpose, the essential qualities of a nasal gravitator being smallness, smoothness, and slight flexibility. After providing an instrument, which can generally be done at any farmhouse, the patient is then laid upon the back, the floor of the nose brought as nearly vertical as may be, and the loaded end of the gravitator lowered into the pharynx. Its arrival there will generally be announced by coughing, retching, or clearing up of the throat. The patient, then being brought to an erect position, easily hawks up the weight and carries it forward on the tongue, when the operation of plugging may be proceeded with as usual. The practicability of this procedure he has had occasion to demonstrate frequently, and he finds it much less annoying to the patient than Bellocq's sound or other unyielding instruments.—*British Medical Journal*.

Midwifery.

TREATMENT OF INFANT DIARRHŒA.

BY A. JACOBI, M.D.

In the first year of life it is diseases of the digestive organs that produce the highest mortality; in the second year, diseases of the respiratory organs. To avoid this high rate of mortality in the first year, insist on the mother nursing, if only for a limited period, and pay great attention to infant dietetics.

The most normal breast-milk contains more fat than is capable of being completely absorbed. A good deal is eliminated unchanged. The detritus in the fœces, which we generally call indigested casein, is largely composed of fat. In the preparation of artificial foods we give too much fat. Cream, for this reason, is reprehensible.

Milk is not filtered blood serum, but the transformed cells of the gland. Unhealthy milk with transuded serum, and too much butter and fat, causes diarrhœa. Infants harmed by the mother's opiate, or influenced by her taking mercury, belong to the earliest periods of lactation, or when the mother's health is deranged. Sugar, if abnormally plentiful, as in colostrum, causes diarrhœa, and if below the normal may cause constipation. Casein, if large in quantity, will be likely to constipate, but if it remain undigested will produce diarrhœa. Goat's milk, as an artificial food, should be rejected on account of the large percentage of fat it contains. Cow's milk is improper on account of the large quantity of butter it contains, from its tendency to become acid, and especially from the large percentage and character of its casein. Cow's casein is soluble in water in the proportion of $\frac{1}{20}$, and renders the water slightly acid. Woman's casein dissolves almost entirely in water, and gives a neutral reaction. Cow's casein, in artificial gastric juice, takes longer to dissolve, and coagulates in hard, dense masses. The addition of cream to cow's milk is of doubtful utility. Dr. J. Rudisch uses a mixture composed as follows:—To one pint of water add one-half a teaspoonful of the officinal dilute muriatic acid; to this mixture add one quart of raw, cold milk. Mix

thoroughly, and then boil for ten or fifteen minutes. When pepsin is added to this mixture, the casein coagulates in small, incoherent particles. No cow's milk nor farinaceous articles of diet should be administered without the addition of chloride of sodium. Condensed milk has been supposed to form lactic acid very readily. Fleischmann accuses it of producing thrush and diarrhœa. Yet taken mixed with a certain proportion of barley water it is good. Daly found that children took the milk readily and grew fat, yet showed slight endurance.

In giving cow's milk it should be skimmed, boiled, and diluted with barley water or oatmeal gruel. The whole barley to be boiled for hours. Where there is a tendency to diarrhœa, dilute with barley water. Where constipation is the habit, dilute with oatmeal gruel. Gum arabic and gelatine are also useful diluents. Muriatic acid should be administered with the latter. It may be necessary at times to deprive the child of all milk, giving him barley water alone, even for two or three days. When barley water does not suffice, and when the strength must be kept up, add the white of one egg to three or six ounces of barley water, and add salt and sugar sufficient to make it palatable, and give in large or small quantities, according to circumstances. Where there is much gastric as well as intestinal catarrh, deprive the child of all food or medicine for four or six hours. They will at first suffer greatly from thirst, but this will soon pass off. The first meals should then be small, and will probably be retained. Also give plenty of cool, fresh air. Remove undigested masses from the intestinal tract. If calomel be given for this purpose, it should be administered in four or six grain doses, once. No food which contains concentrated salts should be given, as beef-tea. Avoid everything which increases peristaltic action, as carbonic acid and ice. Avoid increasing the acids in the stomach. Use antacids; any alkali will do, but phosphate of lime is one of the best. Lime water is good, but it must be remembered that it is very dilute, and requires to be taken in large quantities. Destroy ferments. Calomel in *small* doses, $\frac{1}{10}$, $\frac{1}{4}$, $\frac{1}{2}$ grain every two or three hours. Nitrate of silver, largely diluted, $\frac{1}{10}$ to $\frac{1}{16}$ grain in a tablespoonful of water.

Bismuth, one-half to two or three grains every two or three hours. Calm the hyperæsthesia with very small doses of opium—frequently repeated and watched. Alcohol acts as a stimulant and arrests fermentation, and takes the place of food. It is absorbed by the stomach, and thus gives the intestines a rest. Reduce the amount of secretion by astringents.

The main indications are to neutralize acids, reduce nervous irritability, arrest secretion, and change the condition of the catarrhal mucous membrane. When stimulants are necessary, and alcohol alone does not fulfil the requirements, give a hot bath. Camphor stimulates the heart, and though its action is not permanent, yet it is more so than carbonate of ammonia. The dose may be from $\frac{1}{4}$ to $\frac{1}{2}$ grain every hour or two. In collapse and great debility *musk* is very effectual. But it is difficult to obtain pure, and is very expensive. In collapse, five or ten grains should be given at once, and repeated every half-hour. More than two or three such doses will not be required to produce a result.—Condensed from *Am. Jour. of Obstetrics*.

THE ANATOMY AND PATHOLOGY OF TWO IMPORTANT GLANDS OF THE FEMALE URETHRA.

This is the subject of a paper by Dr. A. J. C. Skene, in the *American Journal of Obstetrics*, April, 1880. Dr. Skene describes two tubules large enough to admit a No. 1 probe of the French scale, situated one on each side, near the floor of the female urethra. They extend from the meatus urinarius upward from three-eighths to three-fourths of an inch. These tubules are parallel with the long axis of the urethra, and are located in its muscular wall beneath the mucous membrane. Their mouths are upon the free surface of the membrane, just within the meatus urinarius. The upper ends of the tubules, as shown in specimens prepared by Dr. F. B. Westbrook, terminate in a number of divisions which branch off into the muscular walls of the urethra. When Dr. Skene first discovered these glands, he regarded them as mucous follicles that were accidentally of unusual size, but investigation in over one hundred subjects shows them to be constantly present, of uniform size and location.

Nothing is known of the physiology of these glands. Their pathology, however, is of great practical interest. They are subject to inflammation of varying intensity. In the milder forms of inflammations the mouths of the ducts are enlarged and surrounded by a very narrow bright red areola, and by pressure upon the urethra from behind they discharge a white serous fluid, but this condition gives very little trouble, and would readily escape notice. The most important pathological condition yet observed is a purulent and continuous inflammation, involving the surrounding tissues. The mouths of the ducts thus inflamed are usually seen externally, and present very small ulcers of a yellowish gray colour. The mucous membrane of the meatus is thickened and of a deep red colour, and has the general appearance of caruncle or papilloma. The lower third of the urethra is very tender, and is a source of great discomfort, which, as a rule, is not increased by urination. The absence of dysuria distinguishes this condition from urethritis and caruncle. In inflammation of the glands their mouths may be distinctly seen. In caruncle of the urethra the diseased tissue is generally limited to the lower border of the meatus between the orifices of the tubules. A simple caruncle, if removed or destroyed, rarely returns. The vascular growths about the mouths of the diseased tubules, if removed one or more times, continue to return until the inflammation of the glands is cured. Dr Skene regards this as explanatory of the usual statement that caruncle is liable to return. In the cases observed by Dr. Skene, he believes the inflammation to have been caused by gonorrhœa, which persisted in the glands long after the original trace of the disease had disappeared. His treatment has been injection with the tincture of iodine and the passage of a probe coated with nitrate of silver along the entire depth of the tubules, and the injection of nitrate of silver dissolved in water by means of a hypodermic syringe with a probe-pointed needle. Sometimes these cases are very obstinate, and the symptoms do not fully disappear after treatment, and as soon as treatment is suspended the inflammation returns.

Dr. Skene says that in an obstinate case he would lay the duct open by dividing it from within outwards, *i. e.*, divide the urethral wall from the ducts into the vagina, and keep the wound open until it heals from below outwards. He would treat it as a fistula in ano. *Chicago Medical Gazette.*

DR. SIMS, in a reprint from the *American Journal of Obstetrics*, April number, in speaking of the use of the clamp in ovariectomy, says Listerism "has killed the clamp, and even Spencer Wells uses it no longer; or so rarely as to make its use quite exceptional. He uses the intraperitoneal ligature, cutting it off close, and leaving the pedicle within the peritoneal cavity. His pupils, Bantock and Thornton, who succeeded him in "The Samaritan Hospital," in December, 1877, adopted the antiseptic method then, and with it the intraperitoneal ligature, never having used a clamp since that time. Thus we see the two greatest ovariectomists living, Spencer Wells (with his lieutenants, Bantock and Thornton), and Thomas Keith, both treating the pedicle by the intraperitoneal method—the one by the ligature, and the other by the cautery, which settles forever the question of the clamp."

DR. SIMS says Keith's operation for ovariectomy is characterized by system. "He uses Lister's apparatus with three jets, which works six hours if necessary, and is placed to the left of the patient's head, at a distance of eight or nine feet from the seat of operation. Most surgeons place it at the feet and to the left. By Keith's plan the spray interferes less with the assistants, and is not expended on their arms and elbows. After operations, his sponges are thoroughly washed, and then soaked for ten or twelve hours in a solution of washing soda, which cleanses them of blood and fibrine. Previously to operation, they are soaked in carbolic water (one to twenty). Just before operation they are wrung out of a hot carbolic solution, and put in a tightly covered tin-pail, and placed near the fire to be kept warm till they are used."

SIMS' SPECULUM ALWAYS AT HAND.—The index and middle fingers of the right hand may be used as a perineal retractor in place of the ordinary Sims' speculum. They may be introduced with the patient in Sims' latero-prone position, the operator standing back of the patient, on the side of the table, in exactly the same position as the assistant who holds the speculum in the ordinary way. In this manner the cervix and vagina may be exposed almost as well as by the speculum. This method of exposing the parts may be of great use when a speculum is needed and not accessible,—in the application, for instance, of the tampon in sudden hemorrhage, or in consultations at a distance, when, for reasons not anticipated, it becomes necessary to examine the pelvic organs.—*Chicago Medical Gazette.*

Original Communications.

"METHOD IN MEDICINE."

BY GEO. H. EMERY, M.D.

"Order is Heaven's first law." An expression oftentimes quoted and repeated by men in all the avocations of life; and yet, is it not true that much is lost to the human family, in both science and art, by irregularity in the arrangement of affairs, and want of method in observation? I have sometimes thought that in no business or profession is there a greater lack of this important element than in that of which we are members. Early in my professional career I had many occasions for annoyance at my own want of proper method of systematizing my cases, and minutely recording treatment; and my memory so often failed me that it was with the greatest self-condemnation and chagrin that I would find myself, after a brief space of time, unable to repeat some previously given prescription, at the request of my patient; in fact, I had forgotten the case as well as the prescription, and resorted to guessing at some compound as near as possible resembling that, that I might insidiously draw out of my patient what my former prescription had appeared like.

As the method now presented by the writer, as original, is the result of several years' experience, and has been simplified so as to be easily followed, and has been of great value to the author as a protection and reference, and furthermore has been subjected to the test of almost ten years' continuous use, I have decided to give it through this Society to the criticism of my compeers, and to the profession generally, accompanied with some arguments on its behalf, which I trust may assist in making it plain, and, if possible, attractive. I would further premise my system by the assertion that it is not an easy or indolent way of avoiding work, nor has this been an effort on my part to make a method of abbreviations which will be less than I see in the many forms of visiting lists now issued by various publishing houses throughout this and other countries, and which I deprecate as mentally dwarfing, unbusiness-like by comparison, and

injurious many times alike to the physician as well as the patient; but for the purpose of improving the physician in minuteness of observation, protecting him from unkind inuendos and malpractice prosecutions, and giving him an exact and intelligent method of referring to the experience of his past professional life. With this object in view, I advance this system for your consideration. Objections on the ground of too much labour have been raised by some, and may present themselves to your minds, while all have concurred in commending the plan; but years of experience and continued observation will, I believe, demonstrate the truth of the aphorism, "There is no true excellency without labour." As I proceed, I shall endeavour to meet my objectors by facts and arguments which I think incontrovertible, but shall now briefly detail the method in question. This consists in a memorandum book (Reynolds & Reynolds, No. 3) and a prescription book, original in style, same size as the preceding, containing about one hundred prescriptions, and perforated so that a stub the same size as the prescription remains in the book. I use carbon paper, cut the size of the prescription blank; and when I have written my prescription, have thereby an exact copy of the original. Each of these stubs I number, and continue the numbers in regular rotation from book to book. My mode of observation is as follows: I will now suppose myself in the presence of my patient, either by visit or in my office. I take out my memorandum or case-book, write in a full plain hand (usually in the morning, before business hours,) the day of the week and date thereof (this, of course, answers for all patients of that date); name of patient in full, with V for visit or O for office; then age; on the line below I proceed to write the prominent indications, as I propound questions and patient answers the same. I would here state that in my gynæcological practice I have had some blank forms prepared, same as those described in Prof. Thomas' valuable work on "Diseases of Women," page 58, and which I find very convenient for my first examination of all cases in this department; these I number, and after making an entry in my case-book of the name

of patient as before, I write. At all subsequent examinations of these cases I use my case-book, making notes in full. After writing all the prominent symptoms deemed necessary in each case, should I write a prescription, I place the number thereof at the bottom of the record, opposite the pulse, temperature, and respiration. This method of keeping a reference from the case records to the medicinal agents used is of the utmost importance, as I shall show further on in my thesis; and I call your attention specially thereto, so that you may remember it when we come to arguments thereon.

The symptomatic records are longer or shorter according to the exigencies of the case, never failing to make some memoranda of symptoms for every patient consulting me; in surgery especially, fractures and dislocations, being very particular to note the action of my patient as to obedience to my instructions, the measurement, modes of dressing, changes of same, etc. My account books are separate, and consist of day-book, cash-book, and ledger; in the first of which I simply enter name and amount, numbering each entry in regular order, placing this number on the margin of my case-book in red ink. I then arrange each account in ledger in the usual manner, using only the numbers from the day-book (which also agree with the marginal numbers on my case-book), and placing the amount charged immediately above; this enables me to refer directly from my ledger to the case-book, and speedily tell the precise services rendered in case of any dispute, and also economize space. The day-book may be dispensed with if the physician choose to make his ledger-entry direct from case-book.

Since and before I had established this case-recording system, I have many times had patients, in whom I held the most unbounded confidence, dispute visits and services; and it was only after I showed them the details of services that they were convinced of their error and willing to settle my claim. Before I had any very definite method, I usually discounted my bill at the dictum of the patient, and many times with loss and injustice to

myself. In the early years of my practice I was often annoyed, as I before stated, by the return of a patient, for whom I had prescribed some weeks or months preceding, with a request of me for a repetition of the prescription then given, assuring me of its great efficacy and excellent action. Assuming an exceeding wise attitude, and gazing very approvingly at my admirer, and bidding she or he be seated, we would hold about the following colloquy :

DOCTOR.—Hem ! Yes ! Yes ! Your name is— (pausing for the patient to fill up the blank, and ransacking my brain in a vain attempt to remember that I had ever seen the party before.)

Smith, rejoined the patient.

DOCTOR.—Oh yes ! Mrs. Smith, you were suffering with headache.

MRS. SMITH.—No, Doctor ; it was a difficulty in my bladder.

DOCTOR.—Yes ! Yes ! I remember. How long is it since I saw you ?

MRS. SMITH.—About six weeks.

DOCTOR (pulling out my visiting list, and slowly turning the pages, continues).—Did you pay for your prescription, Mrs. Smith ?

MRS. SMITH.—Yes ; I gave you a dollar.

(Of course, at this point all hope sank, for I always put my cash practice in my pocket, without note or comment, but I continued).—The medicine I gave you was a white liquid, wasn't it ?

MRS. SMITH.—Oh no ! it was powders and pills.

DOCTOR.—Yes ! Yes ! You were taking a powder in the morning, and pills at dinner and in the evening.

MRS. SMITH.—No, Doctor ! a pill morning and evening, and a powder at dinner.

DOCTOR.—Yes ! Yes ! Exactly !

By this time I had gotten about all I could hope for, or wanted to get out of this lady, and after changing the subject to the weather, &c., I would deliberately write a prescription for pills and powders, without any more certainty of its similarity to the previous medicine than I had to the character of the inhabitants of Saturn or Jupiter.

This unsatisfactory mode of memorizing and

referring to previous work led me to make a special memoranda of important cases ; but many that I considered unimportant were frequently those to which my attention was subsequently called, and about which information was requested. This led me to the method of writing the important symptoms presenting themselves in every case, at the immediate time and place that I obtained the same from the patient, as before stated.

Let me, however, by some practical illustrations culled from my own experience, show the inestimable value of the system to those employing it.

1st. *As a protection against Malpractice Suits.* And as these usually occur in the department of Surgery, particularly in fractures and dislocations, very full and concise notes should be taken at each visit made, respecting every duty performed.

Some years ago, after treating a patient for compound fracture of tibia and fibula, at one of my visits, and before leaving, I made a request for a small amount on my bill, and left with the usual injunction that I be sent for in case of any unfavourable changes. The next day, however, another physician, since deceased, was summoned ; and without deigning to notify me, or instructing the family so to do, he responded. And with that child-like and bland expression, known only to the members of our profession, in the most confidential and sympathetic manner assured the man, that if he had not been called, and arrived at that immediate moment, amputation would have been absolutely necessary, and many other untruthful criticisms, which helped the patient in a purposed endeavour to defraud me of remuneration for my services. At the appointed time for my visit I proceeded as though I had heard nothing of the change of physicians, and found all my dressings altered, and neither extension or counter-extension in use. I took full notes of the change, and after so doing stated the full amount of my bill. In due time I requested settlement, which was refused, with threats as to what would be done in showing publicly my ignorance if I attempted to collect the amount ; my medical friend, of course, encouraging him in his position. I immediately

commenced suit, and was answered with a counter-suit for malpractice. At the trial I was enabled to detail minutely every visit and method of treatment, with measurements, etc.; while my opponents, depending on memory, made so many discrepancies that their attorneys, after two or three days' conflict, requested a withdrawal of suit, and gave judgment for my bill in full. Nothing but my case-book won me the suit, and prevented my reputation from severe injury and malicious slander. In many similar cases that I have since witnessed in the courts, physicians seem to be uncertain and confused as to their treatments, and can detail nothing with positiveness, which fact itself shows a lack of care and attention.

2nd. *As a reference whereby we may protect the interests of our patients.* This assertion I can best prove by giving you an illustration selected from a number of similar cases occurring in my own practice. In 1874, while practising in Northern Wisconsin, the author was consulted by a man with necrosis of femur, caused by a gunshot wound received while in the army. A number of pieces of dead bone were removed, and, after a time, the patient passed from my observation. About two months since I received a letter requesting me to detail the case, in an affidavit, for pension purposes. I could not even recall the name on reading the letter; but upon consulting my records, I found symptoms and treatment so detailed as to revive the whole case to my mind; and this enabled me to give an extended statement of the facts, thereby not only proving beneficial to the party interested, but very gratifying to myself. Many times have such incidents occurred in the past, but this is sufficient to suggest its benefits in this direction.

3rd. *As a financial benefit to our patients, and a protection to life.* I suppose I do not err in making the assertion, that a principal objection to our school of medicine, on the part of our friends as well as those opposed to us, consists in the expense attending the procuring of medicine. I further venture the assertion, that millions of dollars are expended annually to procure useful and expensive medicines, of a class that I will term durable, and which I place under the general head of Tonics. I say

millions of dollars are expended annually for such remedies, and after a few doses the bottles are set aside, perhaps by necessity, for other prescriptions, or because of the convalescence of the patient, and thus *small drug stores* (as commonly expressed) are accumulated in private residences, without any method of referring to the contents of the bottles, etc., on the part of the physician, and the same medicines are prescribed and accumulated, until the advice of Shakespeare is followed, and the *physic is thrown to the dogs*. This waste may be almost entirely avoided by having the initials of the patient on the prescription and stub, with the number on the stub; then when a prescription is written, put the number of the stub at the bottom of the records of symptoms in the case-book. This refers you in an exact manner to your line of treatment from the case-book. (The writer hereof claims to have been the first to have originated and applied such a method in this practical way.) You should also always insist that the druggist mark the initials of the patient and the date on the label, as they find it on the prescription; thus, J. H. D., or Mrs. R. T., or S. J. B.'s child. After a time we are again consulted or summoned to see the patient, and informed that there is some medicine left of a previous prescription. Selecting it by the initials from the accumulated medicine of perhaps three or four other members of the same family, I instruct my patient to send to my office at a certain hour; in the meantime I shall examine the prescription, and may be enabled to have them use the same mixture, suggesting economy, etc. After so doing I have repeatedly found the medicine just what I should have prescribed had I written another prescription, and what had been purchased at the cost of a dollar or more, with frequently two-thirds of the medicine remaining on hand.

I believe I can truly say I have saved hundreds of dollars to my individual patrons in this manner. I have often pitied the poor as I have observed the waste in this direction, and must say that I believe it is our duty as honourable and honest men, working so much among the sons and daughters of honest toil, to do everything in our power to establish

methods of economy in this direction; and I am fully convinced that, if the profession adopted a system such as is here presented, vast sums would be saved to the people. But I further claim that the initials of my patient on each label is a source of protection to life, by enabling the nurse or attendants to keep medicine for different patients from being mixed, except by carelessness on their own part, and without the possibility of a shadow of reflection upon the physician or druggist. Frequently, in each of our practice, we are called to a family where two or more patients of different ages are sick at the same time, and I have known powders and mixtures being prescribed and obtained from the doctor or druggist, for an adult and for a child—the medicine in similar form, but of the most terrible and deadly difference of power—and the person administering them having nothing to guide them from a fearful error, except their memory, as to the position of the medicine upon the table or shelf; and, gentlemen, I and many of you have known of the child receiving the poison mixture or powder, and the nurse, or administerer, condemned; but I have always felt and believe that the physician or druggist who failed to mark the initials or name on the label was in part culpable with the unfortunate administerer of the dose.

4th. *As a check between the Physician and Druggist, preventing recrimination as to the contents of prescriptions.* I have frequently heard the complaint made by druggists, and have known physicians to pretend to duplicate a prescription (where the label had been defaced or the bottles mixed with others, and no means of selecting them marked thereon), when the patient returned to the physician, stating, "this mixture is not like the other you gave me." He (the physician) would commence a tirade on the druggist, asserting the incompetence of the "Knight of the Mortar," and advises the patient to avoid that store, &c., &c.; whereas the mixture was correctly compounded, but the doctor had forgotten his previous prescription, and the last one was entirely dissimilar to the first. You can readily see that, if we have our duplicates of prescriptions, such prevarication and misrepresentation is positively avoided.

And in conclusion, by combining the case book and prescription book, in the manner described, it produces concentration of thought, exactness of method, and confidence on the part of an intelligent patient, which the author has found more than repays the trouble to every honest and earnest student in the pursuit of knowledge. This I cannot conceive obtainable by the system of abbreviations which I find prepared by publishing houses in book form, and which consists in giving each patient a line, and each day its column, making a dot for a visit to be made and crossing it when made. Will any gentleman assert that he can, after a few months (not to say years), give therefrom any correct, exact, or truthful account of services rendered? You tell me this method has too much labour. All I can say is that while it has more labour than those plans whose demerits I have tried to show by contrast, yet in every other department and profession of life, we, with the people, demand a similar correctness. As a proof hereof, let us compare ours with the other learned professions. Take the Theologian and see his manuscript work, or the Attorney with his carefully prepared brief. What if we should say to the former, Why don't you, as a graduate in your profession, dispense with so much work of preparation? and to the latter, Can you not find a method of abbreviation whereby you may avoid the trouble of writing so much about your case? Why, the mere statement of such a proposition would be ridiculous; and yet in the most serious profession to the human family, that which deals with its most weighty affairs, namely, life and death, we find objectors to a little labour, and those who with the stroke of a pencil signify all they deem important to themselves or the patient. Does this satisfy and enlarge the mind, and produce full approbation of conscience? I leave you individually to answer. If my method is such as to meet your approval—and I certainly trust that it may merit some attention and prove of benefit to many present in their future practice—I shall be amply repaid for preparing this thesis, and giving it to this Society.

SEVEN medical students have died of diphtheria contracted in the Hospital des Enfants-Malades, Paris, during the past year.

Translations.

EXPLOSIVE MIXTURES.

M. Kœuffer has published, in the *Annales de la Société Medico-Chirurgicale de Liège*, an interesting study of pharmaceutic preparations, which in certain cases, often not well marked, may give rise to explosions. Amongst these very numerous substances we will cite only the most important. The author, for example, while preparing a pomade composed of chloride of lime, flowers of sulphur and other substances, saw small detonations produced, and the entire mass entered into deflagration. Another time, essence of turpentine having been poured into a bottle in which remained some sulphuric acid, the vase burst. These explosions may be produced in many other cases. A German journal reports that in America, one of the most dangerous substances, nitroglycerine, is found in all the homœopathic pharmacies. The hypophosphites may also be the cause of accidents. In one case, the mixture of hypophosphite of lime, chlorate of potash and acetate of iron produced a violent detonation, which burned the preparator and put his life in danger. The trituration of the hypophosphite alone may be dangerous when the substance is very pure. The solutions of oxydizing bodies in glycerine demand the greatest prudence. Thus, chromic acid in glycerine has been able to give rise to a violent detonation. In this case the solution should be made drop by drop in order to avoid accidents.

The solution of permanganate of potash in glycerine presents an analogous danger. Pills of oxyde of silver have equally been able to determine on the one who carried them a formidable explosion. The iodide of nitrogen, which may be formed in certain circumstances, is also detonating. Now, in America there are frequently seen prescriptions ordering a mixture of tincture of iodine with ammonia, which necessarily form iodide of nitrogen: if the explosion is rarely produced, it is because the trituration is generally made in the presence of water, which prevents this result. In any case, this mixture should only be made in very small quantities. A pharmacien ought then to refuse to fill a prescription for which tincture of iodine is

to be mixed with an ammoniacal liniment; he ought also to refuse to make every mixture of chlorate of potash mixed with sulphur and analogous substances. Thus chlorate of potash mixed with tannin is dangerous, and these bodies ought only to be delivered separately, in the case where the physician prescribes them in substance and not under the form of gargle. A tooth powder pointed out by Price, composed of chlorate of potash and cachou, and used with a dry brush, would be capable of producing a detonation in the very mouth of the patient. Price also noted danger from concentrated solutions of permanganate of potash in alcohol and water, which may be filled but never delivered in uncorked bottles; if not, explosion follows infallibly.

Chlorate of potash with glycerine also constitutes a dangerous mixture. Once a gargle prescribed by one of the most renowned physicians of New York, containing equal parts of chlorate of potash, perchloride of iron and glycerine exploded with great violence, not in the pharmacy, but in the saddle bags of the bearer.

Another time, a similar mixture exploded only some time after its preparation, under the influence of the rays of the sun. This time the explosion caused the burning of the house. Lately there has been noticed an explosion of a powder containing chlorate of potash and hydrochlorate of morphine.—*Union Méd. du Nord Est.*

ECZEMA OF THE SCALP AND NOSE.

Neumann of Vienna, in moist eczema of the hair and scalp, bathes the diseased parts twice a day with the following solution:

Venetian borax	
Crystallized alum	5 parts.
Glycerine	100 "

For this lotion may be substituted a pomade thus formulated:

Venetian Borax.....	5 grammes	3i.
Dissolve in a sufficient quantity of glycerine.		
Mutton suet		
White wax—āā	25 grammes	3ij.
Olive oil		qs.

In eczema of the nose he introduces into the nasal orifice suppositories composed with

Cacao butter—80 centigrammes	12 grs.
Pure tannin—15 "	2¼ "

The tannin may be replaced by 0.15 centigrammes (2¼ grains) of oxyde of zinc.—*Le Practicien.*

ON THE ROLE OF THE EUSTACHIAN TUBE IN
THE PHYSIOLOGY OF AUDITION.

BY DR. EDOUARD FOURNIÉ.

The conclusions of a paper by Dr. Fournié are :

1. To the number of usages generally attributed to the Eustachian tube, and which are—The maintenance of an equal tension of air on both faces of the membrana tympani, and the evacuation of the matters secreted, we add a third. The tube, in our opinion, is destined to transform the closed cavity of the tympanum into an open cavity, for the purpose of preventing the interior and exterior vibrations from arriving through the solid parts into a closed cavity, and there giving rise to a resonance incompatible with the excellence of hearing.

2. Contrary to the opinion generally adopted nowadays, the Eustachian tube is always open, and the communication of the external air with that of the cavity of the tympanum is incessant.

3. The external bundle of the pharyngo-staphylin, the internal and external feri staphylins, are obturators of the Eustachian tube and not dilators of this conduit, as it is generally professed.

4. The obturation of the tube is always but momentary, and it is produced day and night during the movements of deglutition, during the pronunciation of certain letters, and during singing.

5. The circulation of the air of the tube and of the drum of the ear represents a kind of respiration, in which the obturator muscles perform the functions of expiratory forces, whilst the elasticity proper to the tubal cartilage represents the inspiratory forces.—*Gaz. des Hôp.*

TREATMENT OF VAGINITIS BY IODOFORM.

M. Martineau employs in vaginitis an emulsion made of equal parts of iodoform and oil of sweet almonds. Under the influence of the oil, the iodoform almost entirely loses its odour, to such an extent that it may be employed without the persons surrounding the patient being able to suspect the nature of the dressing.

M. Constantine Paul indicates another process to do away with the disagreeable odour of iodoform. It is sufficient simply to drop a few drops of the essence of bitter almonds upon the iodoform powder.—*Gaz. des Hôp.*

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, JULY, 1880.

J. & W. HORLICK & Co.'s PREPARATIONS.—The Infants' Food of this firm has the best reputation among the leading medical men in the States (such as J. Lewis Smith and others) as a diet, when unfortunately the little sufferers have to be put on artificial diet in that troublesome and fatal disease, cholera infantum. We hope that a full report of the results obtained by its use here will be presented.

UNIVERSITY OF TORONTO—MEETING
OF CONVOCATION.

On Monday, June 7th, a meeting of Convocation of the University of Toronto was held in University College, and we are gratified to be able to say was much better attended than has been heretofore the case, over seventy graduates being present. Owing to the regretted absence of the Chairman, Chief Justice Moss, through illness, the Chancellor, Hon. Ed. Blake, presided. John A. Boyd, M.A., Q.C., was elected in the place of Hon. Thomas Moss. In reply to Mr. J. C. Hamilton, in reference to the resolution passed last year, Dr. Oldright stated unofficially that it was the intention of the Senate to make public its proceedings as far as possible. A Committee, consisting of the Chairman and Dr. Oldright, Messrs. Hodgins, Cattanaach, Loudon, Gibson and the clerk, was appointed to report on a proposed code of rules, at the next meeting. Mr. N. Kingsmill moved as follows :—

“That a Committee be appointed to consider the desirability of procuring amendments to the Acts relating to the University of Toronto,

and amongst others the amendments indicated in the schedule to this resolution; that the Committee be composed of the following gentlemen:—The Chancellor and Vice-Chancellor, and Messrs. J. M. Gibson, H. M. Deroche, R. Harcourt, R. M. Wells, J. M. Buchan, Dr. Richardson, J. C. Hamilton, J. H. Hunter, and the mover and seconder, and do report to the next meeting of Convocation which may be held, general or special.

"Schedule of Suggested Amendments.—(1) That the election of members of the Senate be preceded by a nomination of candidates, nominations to be made by nomination papers signed by ten members of Convocation entitled to vote, and to be sent to the Registrar by such a day as will enable him to send the names of the nominated candidates, with the names of the ten persons nominating them, by circular, along with the voting paper, to each graduate entitled to vote, names of candidates to be also published in one or more of the Toronto newspapers. (2) That sec. 15 of Rev. Stat., c. 210, be amended so as to provide that voting papers may be delivered to the Registrar at any time between the nomination and the time appointed for the counting of votes. (3) That in alternate years seven and eight of the elected members of the Senate shall retire annually, and that no such retiring member shall be eligible for re-election for the succeeding year unless he shall have attended half the number of meetings in the preceding year. (4) That all graduates shall be *ipso facto* members of Convocation, subject only to such rules as to payment of fees and otherwise as Convocation may prescribe. (5) That twenty members shall form a quorum of Convocation. (6) That the Bursar be required to transmit annually to the Senate, and to Convocation, as well as to the Lieutenant-Governor, the account mentioned in sec. 6. of Rev. Stat., c. 211. (7) That Convocation shall fix the term of office of the chairman."

He spoke briefly in support of the various suggestions in the resolution.

Mr. J. A. PATERSON, in seconding the resolution, expressed the opinion that the number of members of the Senate should be increased.

The motion was carried.

A LEVY.

On motion of Mr. D. BLACK, the sum of \$1 was fixed as the fee for the current year. A few minutes were thereafter spent in receiving the fees of members, \$67 having been subscribed.

NEXT MEETING.

On motion, it was decided that the next meeting of Convocation should be held on the

day fixed for the next College Convocation, at 7.30 p.m.

THE UNIVERSITY LIBRARY.

Mr. J. C. HAMILTON moved, "That this Convocation is of opinion that the rules of the University library should be such as to allow graduates to take books out of the library within proper restrictions, and also that the library should be open at least one evening every week for the benefit of graduates or undergraduates who may wish to use the same." Carried.

SENATE LEGISLATION.

Mr. WM. HOUSTON, in accordance with a notice he had given at the last meeting, moved, "That the Senate be and is hereby requested to furnish for the information of Convocation copies of all statutes and general resolutions passed by it, and now in force." The motion was carried.

MISCELLANEOUS.

Mr. J. H. HUNTER thought the time had come when the University of Toronto should issue an annual calendar.

Mr. W. HOUSTON gave notice that at the next meeting of Convocation he would move "For a Committee to consider and report upon the question whether the bequest of the late Richard Noble Starr, M.D., 'for the encouragement of the study of the subjects of anatomy, physiology, and pathology' has hitherto been applied by the Senate in the manner best calculated to give effect to the devisor's intention."

Mr. W. H. VANDER SMISSEN, Mr. SMALL, and Mr. KING referred to the project of placing an organ in Convocation Hall as worthy of the support of graduates.

Mr. W. H. C. KERR remarked that the organ he would like to see established was a University magazine.

After votes of thanks to the Chairman and to the railway companies for favours extended, the meeting concluded.

THE ANNUAL DINNER.


Convocation Hall in the evening was the scene of the annual dinner and re-union of graduates, at which an exceedingly pleasant evening was spent. The hall was brilliantly lighted, and the tables tastefully arranged, so that when over two hundred guests took their places round the "festive board" the scene presented was a very striking and happy one. The chair was occupied by the Chancellor, Hon. E. Blake, the vice-chairs by Lieut.-Col. Gibson, M.P.P., of Hamilton, and Mr. G. H. Smith, of Kingston. A large number of graduates as well as many of our most distinguished citizens were present. The usual loyal and patriotic toasts were duly honoured and re-


sponded to, the following being the speakers:—The Bishop of Toronto, Rev. Dr. Potts, Rev. Principal Caven, Hon. Mr. Crooks, Mr. Justice Patterson, Mr. Justice Cameron, Hon. Frank Smith, Prof. Goldwin Smith, Col. Durie, Col. Denison, Dr. Aikins, Dr. Geikie, Dr. Richardson, Col. Otter, and others. "Toronto University, and University College, Stepping-stones to the University;" "The Honour Men," "The Ladies," and "The Press," concluded the programme of probably the most successful dinner ever held in Toronto University. It was high time that a more enthusiastic University feeling should be aroused among the graduates, and a more largely attended meeting of Convocation brought together. We were rejoiced to see it, and hope that annually a repetition of such a pleasant and profitable gathering will obtain. We only regret that we cannot give a fuller report; but as our space is limited, and full reports have appeared in the daily city press, the omission will be less felt.


ELECTRO-MEDICAL APPARATUS.—Jerome Kidder, M.D. Kidder's Electro-Medical Apparatus (in general), to which was awarded, in 1875, the Gold Medal of Progress, retains at this date its superior qualities for electro-therapeutical purposes, and we again recommend that the Diploma for maintained superiority be awarded him. Especial mention should, however, be made of an exceedingly compact Faradic apparatus, which Dr. Kidder has devised during the past year. The apparatus is constructed, so far as relates to the motive powers, after the pattern of Gaiffe's celebrated machine, but the helix and rheotome are peculiar to the manufacturer's larger batteries. The merit of this apparatus consists in its ingenious combination of old and new ideas, resulting in the construction of an instrument which for its size gives a current (in strength and variations of quality), superior to any other now in use. We recommend that to this little apparatus be awarded the medal of superiority.

GALVANO CAUSTIC AND GALVANIC APPARATUS.—The merits of the galvano caustic apparatus were fully pointed out in the report of '76. This instrument is substantially the same in construction and thermic power now, as then, but after a more extended test of its merits, and a better knowledge of other forms of caustic batteries, we agree that the one under

consideration is entitled to the Medal of Superiority. Concerning the constant current batteries, nothing can be said further than was given in the report of last year.

 **Diploma for Maintained Superiority.**—For Electro Medical Apparatus.

 **The Medal of Superiority.**—For an exceedingly compact Faradic Apparatus.

 **The Medal of Superiority.**—For Galvano Caustic and Galvanic Apparatus.

A true copy of the report on file.

JOHN W. CHAMBERS, Sec.

Copy of the Judges' Report in Department III, Group 5, Division B, at the 46th Exhibition of the American Institute, held in the City of New York, October and November 1877.

AMERICAN MEDICAL ASSOCIATION—WILLIAM WOOD & Co.'s EXCURSION.—This well-known publishing house gave an excursion to the delegates to the American Medical Association, round and through the harbour of New York to Brighton Beach, Coney Island, and return. We regret that we were unable to accept their kind invitation to participate in such an enjoyable and hospitable part of the amusements provided by the New Yorkers for their visitors. The meeting appears to have been well attended, and well provided with intellectual and other entertainments.

LACTOPEPTINE.—This valuable preparation has become so well known that we need scarcely call attention to its usefulness in all varieties of dyspepsia. It has also gained a high reputation in cholera infantum, so prevalent in our hot months, and in that other troublesome complaint that is all in season—vomiting of pregnancy.

UNIVERSITY OF TORONTO.—ANNUAL COMMENCEMENT FOR CONFERRING DEGREES, HONOURS, &c., was held on June 8th, and, as usual, largely attended. Pleasing incidents this year were the presentation by the graduates to the Senate of a portrait of Dr. McCaul, the delivery of a brilliant speech by the Chancellor, and the fact that a lady this year had carried off scholarships in Modern Languages and General Proficiency. It is almost needless to remark, in conclusion, that "Old Grimes" was present in full force.

NEWSPAPER LAWS.—We call the special attention of postmasters and subscribers to the following synopsis of the newspaper laws:—1. A postmaster is required to give notice *by letter* (returning a paper does not answer the law) when a subscriber does not take his paper out of the office, and state the reasons for its not being taken. Any neglect to do so makes the postmaster *responsible* to the publishers for payment.

2. Any person who takes a paper from the post-office, whether directed to his name or another, or whether he has subscribed or not, is responsible for the pay.

3. If any person orders his paper discontinued, he must pay all arrearages, or the publisher may continue to send it until payment is made, and collect the whole amount, *whether it be taken from the office or not*. There can be no legal discontinuance until the payment is made.

4. If a subscriber orders his paper to be stopped at a certain time, and the publisher continues to send, the subscriber is bound to pay for it *if he takes it out of the post-office*. The law proceeds upon the ground that a man must pay for what he uses.

5. The courts have decided that refusing to take a newspaper and periodicals from the post-office, or removing and leaving them uncalled for, is *prima facie* evidence of intentional fraud,

WILLIAM WARNER & Co.—The pills of this celebrated Philadelphia firm are elegant pharmaceutical preparations. They are well sugar-coated, and keep for years without becoming hard and inert. This firm has also become well known as manufacturers of Ingluvin, so useful in gastric troubles. We have used it frequently with satisfactory results, and can therefore recommend it.

UNIVERSITY COLLEGE, TORONTO.—Professor Daniel Wilson has been appointed to the vacant Presidency; and Mr. Warrant, of Magdalen College, Oxford, takes the Classical Professorship.

Our thanks are due to Dr. Thomas Pyne, Registrar Ontario Medical Council, for his never-failing courteous accedance to our request for information about such Council matters as could properly be made public.

Book Notices.

Annual Report of the Kingston Asylum for the Insane, for the year ending September 30th, 1879.

Time of Conception and Duration of Pregnancy. By GEORGE J. ENGELMAN, M.D., St. Louis.

Third Annual Announcement of the Dental Department of the University of Pennsylvania, 1880-81.

Ovarian Tumours: At what Stage of the Disease is it the Proper Time to Operate? By EDWARD BORCK, M.D., St. Louis.

On Fluid Extracts, as proposed for the coming Pharmacopœia. Reprint from *Therapeutic Gazette*, April 15th, 1880. Detroit: George S. Davis.

Investigation of the Albany Medical College. Report of the Special Committee of the Common Council of the City of Albany, on the Affairs of the Albany Medical College and the Removal of Dr. John Swinburne.

The Population Question at the Medical Society of London; or, the Mortality of the Rich and Poor.—A paper read at the Society, with the debate. Edited by CHARLES R. DRYSDALE, M.D., Senior Physician to the Metropolitan Free Hospital of London, and Physician to the Rescue Society.

The Principles and Practice of Gynecology. By THOMAS ADDIS EMMET, M.D., Surgeon to the Woman's Hospital of the State of New York. Second Edition, thoroughly revised. Philadelphia: Henry C. Lea. Toronto: Hart and Rawlinson, 1880.

We were much gratified on receiving the second edition of this admirable book, of which we had occasion so favorably to speak a year ago. This edition has been carefully revised, and we can wish the author and his publishers nothing better than that, by an equally rapid sale as met the first edition, a third may shortly be required.

Montreal General Hospital Reports, Clinical and Pathological. Edited by WILLIAM OSLER, M.D., M.R.C.P., London. Vol. I. Montreal: Dawson Bros., 1880.

These reports are dedicated to the veteran Chairman, George W. Campbell, A.M., M.D., LL.D. The volume is well got up, is the first of its kind issuing from a Canadian institution, and is most creditable to its talented editor and to the medical staff. We trust its publication will stimulate the trustees and medical men of other hospitals throughout the Dominion to promote their usefulness to science by adopting some similar method.

Eyesight: Good and Bad. A Treatise on the Exercise and Preservation of Vision. By R. BRUDENELL CARTER, F.R.C.S. London: Macmillan & Co. Toronto: Willing & Williamson, 1880.

The author says in his preface—"A large portion of the time of every ophthalmic consultant is occupied, day after day, in repeating to successive patients precepts and injunctions which ought to be universally known and understood. The following pages contain an endeavour to make these precepts and injunctions, and the reasons for them, plainly intelligible to those who are most concerned in their observance."

Mr. Carter has more than fulfilled his task, and has given to the laity the best manual in many respects yet written specially for them. Other works of the kind cover much the same ground, but Mr. Carter has discussed his subject with greater minuteness.

A Guide to the Practical Examination of Urine.

For the use of Physicians and Students. By JAMES TYSON, M.D. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson, 1880.

That this little work has been well received by those to whom it is addressed is evidenced by its having attained to a third edition.

The subject-matter is well condensed, and yet corroborative tests are given for all the principal organic and inorganic constituents of the urine.

The book opens with a very short description

of the secretion of urine, then takes up the general physical and chemical characters, and then studies the constituents of the urine in health and disease, devoting a large part of the work to the organic constituents. The remarks on Urinary Deposits are good, and in the microscopic search for casts a hasty judgment is deprecated.

The work is made up in portable form, and the paper and typography are good.

Clinical Lectures on the Diseases of Women.

By J. MATTHEWS DUNCAN, M.D., LL.D., F.R.C.S., &c. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson. 1880.

This is one of the most captivating books we have read in a long time, and we do not wonder at the enthusiasm with which his students always speak of Matthews Duncan. But while we are charmed with its racy style, we feel somewhat disappointed in the matter.

The book consists of nineteen lectures, delivered to his class in St. Bartholomew's Hospital, and most of them have appeared from time to time in the medical journals, and have generally been very highly praised.

The first lecture is on "missed abortion, that condition in which the foetus dies, the symptoms of pregnancy cease, where the liquor amni either escapes or becomes absorbed, leaving the foetus in a macerated or mummified condition, rolled up in its membranes, and retained in the uterus for weeks or months after its death," when it may so impair the woman's health that means have to be taken to secure its expulsion. This lecture is full of interest, and touches upon many other matters only indirectly connected with the subject of the discourse.

The second lecture, on abnormal pelvis, does not display the author's usual clearness, either as to the results of pelvimetry or the directions for its practice. Indeed, we think he fails to show that pelvimetry is either positively reliable or practicable in just the cases in which it would be most useful; that is, in those cases of very moderate contraction or deformity in which the induction of premature labour would afford the best chance of saving both mother and child, for he says that in these cases the

measurement can only be taken after the conclusion of labour.

In the third lecture, catarrh of the cervix uteri, is discussed in his usual clear and decisive manner. He very justly disapproves of the term "ulceration of the womb" as applied to that red granular state of the os uteri so often associated with chronic inflammation of the lining membrane of the cervix. He is very graphic in his account of the disease and its symptoms, although a little indefinite when he says, "a glairy albuminous crystalline, or slightly opaline discharge, is scarcely to be called morbid." In regard to the treatment, he justly disapproves of strong vaginal injections, but gives an implied approval of the solid nitrate of silver, which is to be passed into the cervix every third or fourth day; but he says, "If after say about ten such applications the case is not cured, the practitioner should give it up as not amenable to the method," and we heartily agree with him. He recommends zinc-alum for the milder, and caustic potash for the more severe cases, and sometimes the actual cautery, and with these his catalogue of remedies is complete. We only hope our readers will always find them sufficient. He very properly says that a little redness on one hip or around the os may often be disregarded, as it is not always pathological.

The fourth lecture is on ovaritis; but it would be heresy to doubt his estimate of the relative frequency of that disease with perimetritis and parametritis, although we think it will hardly hold true in either private or hospital practice in this country. The lecture is well worth the careful attention of all practitioners, especially that portion which deals with examinations of the ovary.

Lectures V., VI., and VII. are devoted to different forms of perimetritis and panametrinitis; and although they are results of a vast experience, yet they are not so clear as the writings of some of our American authors; and for our own part, we prefer the American terms of pelvic cellulitis and pelvic peritonitis, as being more intelligible to the majority of medical students.

The remaining lectures on Painful Sitting, Aching Kidney, Irritable Bladder, Vaginismus, Spasmodic Dysmenorrhœa, Hepatic Disease in Obstetrics, Fibrous Tumour of the Uterus, Cancer of the Body of the Uterus, Uterine Hæmatocele, Parovarian Dropsy, Rupture of Ovarian Cystoma, and Procidencia Uteri, we recommend to the careful attention of all our readers, as they will be found most delightful and instructive reading, and embody the opinions and teachings of one of the most popular and experienced gynecologists of this age.

Miscellaneous.

TORONTO SCHOOL OF MEDICINE.—The annual distribution of prizes given by the Toronto School of Medicine took place at the school buildings. 4th year.—P. H. Bryce, B.A., Mount Pleasant; 3rd year.—I. H. Duncan, Goderich; 2nd year.—I. T. Duncan, Goderich; 1st year.—W. J. Robinson, Fergus.

PARAPHIMOSIS—Simple Mode of Reduction.—(*Le Praticien*.)—In very difficult cases, where ordinary means fail, Bardinot proceeds as follows: he takes a hair-pin, presses the points together somewhat, and inserts the curved end under the strangulation back of the gland. He then applies a second and a third at intervals around the gland; then drawing the prepuce forward, reduces it with great facility, the skin sliding over the three bridges without obstruction.—*Chicago Medical Journal*.

TO CHECK DENTAL HEMORRHAGE.—Dr. E. H. Danforth gives these directions in the *Dental Cosmos*.—I keep a piece of the very softest, finest sponge, which I wet, and dry under pressure. In a case of hemorrhage after the extraction of a tooth, I cut off a piece about one-half the size of the crown of the tooth, and having first rubbed the side to be inserted with a little nitrate of silver, I dip it into tannin; then with the point of an instrument press it into the socket, and hold it there until it is saturated. It immediately adheres to the walls of the cavity, and if properly inserted will remain until it needs to be taken out. I have used this treatment over twenty years.

TO GET LEECHES TO FASTEN.—Almost every physician has at times experienced the difficulty of getting these animals to bite. The following plan is commended, and will be found effectual in all cases when the leeches are healthy: Put the animals into a small glass vessel half filled with water. The part of the body which is to receive them is carefully washed with warm water, and the glass is quickly inverted upon the skin. The leeches attach themselves with surprising rapidity. When all the animals have bitten, the glass is carefully removed, the

water escaping being absorbed by a sponge. If a single leech is to be applied, the same plan is adopted, using a test tube in place of a glass; by this means the animal may be compelled to bite at just the point desired.—*Ohio Recorder*.

A MODEL FOUNDLING HOSPITAL.—M. Broca, at a recent meeting of the Paris Academy of Medicine, read a very favourable report upon the Foundling Hospital at Moscow, which he had visited while in that city. M. Broca says that this hospital, which was founded in 1764, covers five acres of ground, and that infants are received into it without any inquiry as to their origin, though the parents are allowed to claim them back. As soon as they are admitted they are provided with nurses, and remain in the hospital for three or four months, at the expiration of which time they are put out with their nurses into lodgings in the country. The rate of mortality in the hospital, which was about 81 per cent. at the end of last century, has now been reduced to 25 per cent.—a result which M. Broca attributes in part to the spacious and well-ventilated rooms and numerous baths which have recently been erected, and partly to the fact that the medical staff has been increased to such a degree that no doctor has more children under his care than he can manage. The children are weighed every week, and the registered weights form some interesting statistical tables. There are never fewer than 3,000 nurses with infants at the breast in the Moscow hospital, and some months there are as many as 11,000 infants admitted.

CHLORAL HYDRATE AND CAMPHOR IN TOXIC AND THERAPEUTIC DOSES.—Dr. Simmons first describes prolonged narcotism of several days' duration following the accidental ingestion of two drachms of a mixture containing equal parts of *camphor and chloral hydrate*, which had been prescribed as a local application for neuralgia. The effects following this toxic dose suggested a therapeutic use of the mixture. The first trial was made in a case of periodical mania in the lunatic department of the hospital. The patient, on whom the or-

dinary routine of narcotics, including chloral, morphia, hyoscyamia, etc., had been frequently tried to no purpose, experienced a quiet and refreshing sleep of two hours after taking twenty drops of the camphor and chloral hydrate. On waking, he was given fifteen drops more, when he again fell asleep, resting for several hours, and awaking in the condition usual to him in the intervals of his paroxysms. On subsequent occasions the remedy was used in the same case, always with the same happy result of cutting short a period of several days of violent mania. In other cases of mania, delirium tremens, etc., the author has found the mixture in question able to accomplish what other sedatives seemed powerless to do. He recommends it as a happy combination which will effect, in doses of twenty drops, what is altogether beyond the reach of twenty grains of either camphor or chloral hydrate, administered alone.—*New York Medical Journal*.

MEMBERS OF MEDICAL COUNCIL OF COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO FOR 1880-5. *Territorial Representatives*:—Western and St. Clair Division—Dr. J. L. Bray, Chatham; Tecumseh and Malahide, Dr. E. G. Edwards, London; Saugeen and Brock, Dr. Robt. Douglas, Port Elgin; Gore and Thames, Dr. J. A. Williams, Ingersoll; Erie and Niagara, Dr. W. McCargon, Caledonia; Burlington and Home, Dr. J. D. Macdonald, Hamilton; Midland and York, Dr. J. H. Burns, Toronto; King and Queen's, Dr. W. Allison, Bowmanville; Newcastle and Trent, Dr. H. C. Burritt, Peterboro'; Quinte and Cataraqui, Dr. C. A. Irwin, Wolfe Island; Bathurst and Rideau, Dr. W. Mostyn, Almonte; St. Lawrence and Eastern, Dr. D. Bergin, Cornwall. *Representatives elected by the Colleges, Universities, etc.*:—Queen's College, Kingston, Dr. J. McCammon, Kingston; University of Toronto, Dr. W. H. Ellis, Toronto; Trinity Medical School, Toronto, Dr. W. B. Geikie, Toronto; Regiopolis College, Kingston, Dr. D. Phelan, Kingston; Trinity University, Toronto, Dr. E. Spragge, Toronto; (Victoria College, Cobourg, Dr. W. H. Brouse, Prescott; Toronto School of Medicine, Toronto, Dr. W. T. Aikins, Toronto; Ottawa University, Ottawa, Dr. J. A. Grant, Ottawa; Roy. Coll. Physicians and Surgeons, Kingston, Dr. M. Lavell, Kingston—appointments not yet received). *Homœopathic Representatives*:—Dr. Geo. Logan, Ottawa; Dr. G. Henderson, Strathroy; Dr. R. J. P. Morden, London; Dr. Elias Vernon, Hamilton; Dr. E. G. Husband, Hamilton.

HOME-MADE KOUMISS, OR METAMORPHIC MILK.—Mr. Power, Medical Officer of H. M. Prison, Portsmouth, has made a series of experiments in the fermentation of milk which appear to us well worthy of attention, since they may have for effect the placing of this valuable product within the reach of everybody. After trying the action of various ferments with little success, it occurred to him that milk contains in itself the elements of fermentation (casein and sugar of milk), and that exclusion of the atmosphere and retention of the carbonic acid produced, at a suitable temperature, would fulfil all requirements and yield excellent koumiss. Mr. Power's experiments have, he tells us, proved the correctness of this supposition. Milk fresh from the cow is put into clean soda-water bottles, filled nearly to the top, tightly corked, and the cork secured with cord or wire. It is kept at a temperature of about 70° F., and shaken every day for ten to eighteen days. It is fit to drink in ten days. By keeping it beyond eighteen days the quantity of carbonic acid becomes so considerable that a syphon tap must be used to decant it, otherwise the whole contents of the bottle would escape when it is uncorked. It can be prepared also with milk from which the cream has been removed after standing for twelve hours. In this preparation it is, of course, necessary to take precautions against the explosion of the bottles; endeavours should be made also to secure a tolerably uniform temperature of about 70°, and some discretion must be used as to the length of time the milk is allowed to ferment.

There are probably several reasons for the palpable defects in our clinical and other teaching in metropolitan schools. Some we have already indicated frequently, and with quite unmistakable plainness. They are the tendency to regard hospital office and school lectureships as the heritage of the pupils of the particular school, and to treat them as a sort of succession which are to be the rewards of young men of moderate income, good staying power, and general utility, willing to take whatever comes first in turn, and as ready to lecture on botany as to teach medical jurisprudence,

treating comparative anatomy as an introduction to materia medica, or a supplement to outpatient practice, and the whole as stepping-stones to practice, to be leaped over with as much speed and lightness of foot as possible, until the opposite bank is gained; and then hospital lectureship and clinical teaching are all deserted together; the successful man turns his back on the student as early in life as possible, and the happy day is reached on which the medical world is proudly informed that, "owing to the increasing claims of private practice," the happy incumbent withdraws his ripest knowledge and most matured skill from the sphere of medical education. This is not so in any other country in the world with which we are acquainted. The Nélatons, Trousseaus, Rokitsanskys, and Langenbecks, feel clinical teaching to be their proudest title, their noblest occupation, their most delightful and fruitful duty; they never desert it; they have most of them died clinical teachers; and so with the Henles, the Du Bois-Reymonds, the Claude Bernards, the Sappeys, the anatomical and physiological teachers of the great foreign schools. How strangely would the theory be regarded abroad, that such scientific lectureships should be the changeable by-pursuits of a life devoted really to medical practice, and aiming at medical success and popularity.—*Brit. Med. Jour.*

Births, Marriages, and Deaths.

BIRTHS.

On June 4th, the wife of Dr. McAlpine, of a son.

On Sunday, May 23rd, the wife of Dr. R. B. Nevitt of a daughter.

At Aultsville, on June 13th, the wife of E. D. Ault, M.D., of a son.

MARRIAGES.

At Towle, on June 16th, Dr. William Eurt, of Paris, to Janet MacHoull, eldest daughter of David Ballinghall.

On June 16th, Ross Mackenzie, to Lizzie, eldest daughter of the late F. L. Lizars, M.D.

DEATHS.

At Parkdale, on June 8th, Charlotte Arnold, wife of Dr. Playter.

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THE
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R. ZIMMERMAN, M.D., L.R.C.P., London,
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Selections: Medicine.

THE NEW YORK THERAPEUTICAL SOCIETY.

OXALATE OF CERIUM AS A COUGH REMEDY.

Dr. Andrew H. Smith, Chairman of the Committee on Restoratives, reported cases illustrating the different degrees of success obtained in the use of oxalate of cerium in the treatment of cough. The report was based upon 84 cases furnished by the following observers: Drs. Hobart Cheesman, G. Bayles, H. W. Little for Dr. A. Hadden, F. A. Castle, C. E. Billington, Cameron, Purdy, and the Chairman. The sub-report made by Dr. Cheesman, of St. Luke's Hospital, contains a résumé of the literature of the subject, which the Chairman adopted as the introduction to the report, and it embraced references to Drs. Allport, La Roe, Morje, whose writings have already appeared in the *MEDICAL RECORD*, to Simpson, of Edinburgh, who regards the agent as a sedative and conservator of nerve-force, and to others.

Dr. Cheesman had used the remedy in hospital practice from July 1 to November 1, 1879, allowing it to take the place of all sedatives, including opium, and in the daily average of *phthisis* patients. It was uniformly administered in the form of a dry powder, and notes were taken in 69 trials. In 39, marked relief followed; in 19, the cough was moderately relieved; and in 11 no relief whatever was afforded. Of the 11 in which the remedy was entirely inefficient, 9 were in the third stage of the disease, and in 8 the Philadelphia preparation was used. In all the cases in which the cough was relieved, Merck's oxalate of cerium

was used. The drug was given, as a rule, two or three weeks, and often intermitted, for a time, to test its efficacy. Five grains were given on waking in the morning and at bedtime, as average doses. In some cases the dose was increased in size progressively, perhaps to 10 grains twice a day, with occasionally a dose of 5 grains in the middle of the day, and with benefit. Dr. George Bayles had furnished reports of three cases of *phthisis*, in which doses of 5 to 10 grains were given with marked benefit. He also furnished reports of two cases of chronic bronchitis, which were markedly benefited by taking *three* and five grains in the morning, and 6 and 10 grains in the evening respectively. Of cases of acute bronchitis, one was greatly benefited by the use of 3 grains in the morning and 6 in the evening. Several cases of acute bronchitis were not benefited at all by the use of the drug. He also furnished reports of cases of the cough of dentition treated by the use of oxalate of cerium, in which doses of 1 or two grains in the morning and 2 or 3 in the evening were given with marked benefit. In two cases of pertussis, in which the patient received respectively 5 and 3 grains in the morning and 10 and 6 in the evening, the effect was markedly beneficial. In several other cases no good effects were noticeable. He had also used the remedy in cases of spasmodic asthma in doses of 5 grains in the morning and 10 in the evening, with good results. He also furnished cases of other diseases in which the remedy was used with more or less of benefit. Dr. James R. Leaming had furnished the notes of 3 cases of *phthisis* in which he had used the remedy, and reported that it was, perhaps, the most valuable he had used, inasmuch as no unpleasant

consequences followed, and it had a good effect upon the appetite. Dr. H. W. Little, of the Presbyterian Hospital, had furnished notes of 3 cases of phthisis for Dr. A. Hadden, and in none was any benefit derived from the use of the remedy.

At the close of the reading of the report, Dr. Hadden remarked that the cases reported as belonging to his service were hardly fair ones, because they were not thoroughly reported. In the first case, the patient had great irritability of the stomach, and had delirium, which he thought was partly due, at least, to discontinuance of opium that had been taken for a long time. The second was a case of fibrous phthisis, which was markedly relieved. In the third case the cough was relieved for a few days, and after that the remedy had no effect whatsoever. He had not used it in private practice, but now saw a reasonable basis for its trial. One reason for the incomplete report of the hospital cases, doubtless, was the fact that while using the drug his term of service expired, and the visiting Physician who followed him did not continue the use of the remedy. Dr. F. A. Castle had furnished full notes of two cases of phthisis in which 6 grains administered twice daily gave marked relief from the cough. The second case illustrated, in a striking manner, the difference in the value of different preparations, Wyeth's being useless, and Merck's efficient. Drs. Billington, Cameron, and Purdy had furnished notes of cases in which temporary relief was obtained by the use of the drug.

The Chairman reported *five* cases of phthisis, in four of which temporary benefit was obtained by the use of the oxalate of cerium, in doses of 10 grains twice a day.

From the well-known sedative effect of the drug upon the stomach, it might reasonably be expected that it would benefit cough by allaying reflex gastric irritation. In addition to that, it was believed that it had a direct sedative effect. The conclusions reached by the Committee were the following:

1. Oxalate of cerium could be safely administered in doses of 10 grains, three times a day, for many days in succession.

2. The only unpleasant symptom, when so

used, was slight dryness of the mouth that appeared after several days.

3. It was probably most efficient when administered dry upon the tongue.

4. Its effects were not produced until two or three days after its use was begun, and lasted for two or three days after the remedy was discontinued.

5. It was most efficacious in the treatment of chronic cough, and the initial dose should be 5 grains.

6. In the majority of cases it had not proved an efficient cough medicine for any considerable length of time, but could be regarded as a valuable agent to be employed in alternation with other remedies.

7. It did not disturb the stomach; on the contrary, it relieved nausea and improved digestion.

8. Different preparations upon the market were not equal in value; and when success was not obtained by one, another should be substituted.

The President spoke of the uncertain action of the remedy in the treatment of the vomiting of pregnancy, and possibly it was due to the fact that he used the Philadelphia preparations, and at the same time used small doses; whereas large doses of a more reliable preparation should have been employed.—*Medical Record*.

COCA IN THE OPIUM HABIT.—Since the publication in these columns of Professor Palmer's article on coca as an antidote to opium-eating, the demand all over the country for the coca has been so great as to put the drug-houses to their best efforts to fill orders. Professor Palmer is daily in receipt of letters asking how the remedy is to be used. He asks us to publish the following: "Coca is to be used as a *substitute* for the opium. It is therefore to be taken as freely as the cravings of the system for opium may demand—tablespoonful doses of the fluid extract several times a day, more or less, as needed. The 'break-off' is to be made at once and for all, and coca is the staff upon which the sufferer is to throw his whole weight." He also asks that patients and physicians will send reports of results to him or to the editors. He suggests that it is best that the drug should be given under the supervision of the family physician, so that any collateral contingencies may be met and counteracted.—*Louisville Med. Jour.*

AMBULANT TYPHOID; REMARKS ON THE SPECIFIC TREATMENT OF TYPHOID FEVER.

CLINIC OF PROF. ROBERTS BARTHOLOW.

Gentlemen, I have to-day an extremely interesting series of cases. I begin by exhibiting an ambulant case of typhoid fever—walking typhoid, as it is called. It is extremely rare that you will meet a case of walking typhoid; although, as they are sometimes seen, it is very important that they should be recognized early. This patient, although in his second week, and presenting all the typical phenomena of typhoid fever at this stage of the disease, was up to yesterday morning still on his feet, and he walked to the Hospital. Finding him so ill, he was at once admitted into the ward and placed in bed.

I have said that he was in his second week. What are the phenomena of this stage of the disease, which confirm the history he has given? In the first place, there is a peculiar hebetude of mind, with some confusion and mental wandering. He has not had any delirium, but simply stupor. It is not every case of typhoid that is characterized by the ordinary low, muttering delirium; many only have stupor; and indeed the name typhoid was derived from this low condition. Besides some fulness of the abdomen (tympanites) and diarrhœa, we have, in the second week particularly, the peculiar well-marked eruption of typhoid fever. It is present here, though not so well marked as yesterday; here and there on the surface of the abdomen and lower part of the chest are minute red points, lenticular spots, quickly disappearing on pressure, and as quickly returning when the pressure is removed. There is gurgling upon deep pressure in the right iliac region, due to ulceration and the accumulation of gas or wind at this point; and there is more or less tenderness at this place. There is also an increase in the size of the spleen, *i. e.* increased dulness in the splenic region; and there are some pulmonary symptoms. Upon examination of the chest we find diminished sonority over the upper part of the left lung, due to catarrhal swelling of mucous membrane. There is always some bronchial catarrh in typhoid. Very

often, as in this case, it occurs that hypostatic congestion is found at the lower part of the lungs. The temperature and pulse correspond with those of a simple case of fever at this stage. He tells us that he had bleeding at the nose, and that he had five or six stools a day; they have been examined, and are the ordinary characteristic stool. One of his complaints was, that as soon as he took his meals he had a movement of the bowels.

Such are the simple and striking phenomena of the case of ambulant typhoid, differing in nothing from the usual form of the disease, except that the patient continues walking about, dejected, miserable, and consumed by fever, instead of taking to his bed. He has been put upon what is called the specific treatment of typhoid—five drops of compound tincture of iodine, to be given well diluted with water. By this specific treatment I mean a kind of treatment adopted in Germany for this malady with special reference to the destruction of the poison which caused the disease. The other form of specific treatment includes three or four doses of calomel, five or ten grains at a time, given during the first week. I prefer the systematic administration of iodine during the three weeks. Under this treatment, with proper diet and nursing, the mortality is very much diminished.

When the temperature gets too high, we will have to modify the treatment. If the thermometer placed in the axilla reaches 105° we will have to institute measures to depress the temperature, because a long-continued high temperature brings about changes in the muscular structure of the heart and in the brain, and thus becomes a source of depression. A fatal result may be due simply to a high temperature. By the use of baths a certain amount of heat can be carried away from the body; and by the administration of antipyretics, such as quinine and salicylic acid, its production is lessened. Of all the remedies that reduce temperature, upon the whole I prefer quinine. Liebermeister, a high German authority on this subject, has stated that if he had to make a choice of all the leading antipyretics he would choose quinine. The temperature now, in this case, is only 102°, and therefore not sufficient

to demand active antipyretic treatment. We will continue the use of the iodine and attend to the proper dietetic management; and if the temperature goes above 104° at any time he shall have the antipyretic regimen, giving him from twenty to thirty grains of quinia in the evening, and graduated baths to keep the temperature down below this point, repeated as often in the twenty-four hours as may be found necessary. If the diarrhoea should prove troublesome it will require attention. As long as its discharges are not more than two or three a day it is not necessary to interfere; but if they go beyond this he shall have—

R. Liq. potassi arsenitis, gtt. ij.
Tincturæ opii, gtt. iv. M.

To be repeated as often as may be needed.

This is one of the best means of treating the diarrhoea of typhoid fever that we have at our command.—*Medical and Surgical Reporter.*

A PSEUDO TUMOUR OF THE ABDOMEN.

BY LUNSFORD P. YANDELL, M.D.,

Professor of Clinical Medicine and Diseases of Children, University of Louisville.

Mr. H., a powerfully-built, fleshy man, aged seventy, in comfortable circumstances, came to me early in June, in 1878, seeking relief from a dropsy of the legs, and general debility. His temperature was normal; his complexion pale and pasty; his face puffy; and he was short of breath. His pulse was rapid and feeble; his appetite variable; his digestion deranged, vomiting being frequent. Diurnal micturition occurred often, and his sleep was broken by repeated calls to the urinal. The amount of water passed was stated to be normal, or but little augmented. Headache was of almost daily occurrence, and was frontal in its location. He had a slight but noticeable bronchitis. Hearing was defective, but this antedated the urinary symptoms. The vision was much impaired, and sometimes it was insufficient to enable him to read; sometimes the letters seemed doubled, sometimes blurred. The bowels were in the main constipated, and attended with pain in evacuation, but not infrequently diarrhoea or dysentery supervened. Mr. H. had

always led a temperate, indeed, an abstemious life, and his liver evinced no signs of derangement. The spleen was normal. The heart was somewhat irregular in its action, losing a stroke every six or eight, or twenty or thirty beats, without uniformity, and there were present evidence and history of valvular insufficiency of long standing. There was, however, no ground for charging the dropsy to the disability of the heart. The patient had been "complaining" for six or eight years. Has had hemorrhoids forty years. More or less dysuria had existed three years. Three months before consulting me, coincident with a severe cold, swelling of the legs was observed. This steadily increased, giving much inconvenience by weight, pressure on the skin, and stiffness of the knees.

Suspecting albuminuria and discovering no special cause for the disease, the patient was put on bromide of potash, ergot, iron, and milk diet, and elaterium was given to remove the serous effusion. Large watery discharges followed the elaterium, and the leg symptoms diminished satisfactorily; but in a few days decided mental aberration came on, in consequence, possibly, of the elaterium or the ergot. I have known it brought on by each of these medicines, and both were discontinued.

A careful analysis of the urine, to my surprise, failed to discover any albumen, sugar, or other abnormal constituent. The water was found limpid and excessive in quantity.

The patient was now stripped and submitted to a minute search for abnormalities which might account for his troubles.

In the lower portion of the abdomen a round tumour as large as a three-year-old child's head was discovered. It was immovable, solid, fibroid in feeling, and painless. The thick abdominal walls interfered greatly with the sense of touch. Mr. H. and his wife both declared the tumour had never before been suspected. It was the wife's custom to assist her husband in his bathing, and he had often complained of discomfort on pressure and rubbing of the abdomen during the process of ablution, but no swelling was perceived. At my request Dr. Coleman Rogers was called in consultation. On hearing the history of the case, he, like myself, suspected albuminuria until the analysis of

the urine was mentioned and the abdominal tumour was pointed out. The oedema of the limbs was of course due to the pressure of the tumour, and the question to solve was the nature of this. The sex of the patient excluded uterine or ovarian origin, and the testicles were in their right place. Its physical characters precluded its being a fecal accumulation, a floating kidney, or an aneurism. There was no perceptible sign of fluid or gas.

A fibroid tumour attached to the bladder was now what we guessed. An examination of the bladder by means of a sound was determined on, but the excessive tenderness of the urethra and the patient's nervousness rendered the introduction of the sound impossible. A small Nelaton's catheter was with difficulty passed in, and resulted in the withdrawal of a few drops of blood and pus and about two gallons of clear urine. Subsequent digital examination detected considerable enlargement of the prostate gland and neck of the bladder.

The patient expressed himself as much relieved. He was put upon tonics and constructives; a fruit, meat, and milk diet was ordered, and for several weeks the urine was drawn off morning and evening, each time a gallon, more or less, coming away. During the third week a painful orchitis supervened, which ended in abscess. This being opened, a considerable quantity of healthy pus was evacuated, and the wound gradually healed. A small amount of matter after each catheterization came away, and this has continued. The instrument was entrusted to the patient after he was taught its use, and he has used it since three or four times in the twenty-four hours. The orchitis was probably consequent on the irritation of the catheter and his depraved health. The urine at present is less abundant than formerly, but is still abnormal in quantity. The patient's health was rapidly restored, and he is now as comfortable and vigorous as most men of his age. His only annoyance is in the use of the catheter.

The symptoms connected with the digestive apparatus, nervous system, etc., were due in all likelihood to the retention of the urine, its damming up, and resorption.

A case in most respects similar to this occurred in my practice nine years ago. At my suggestion, Prof Austin Flint was consulted. Death occurred within a week after Prof. Flint saw the patient. A post-mortem examination disclosed a sacculated condition of the bladder. A stricture just inside the viscus had led to enormous distension and thickening of its walls. Its walls were nearly two inches in thickness, and it possessed a capacity of more than two gallons.—*Louisville Medical News.*

Surgery.

IRREGULARITIES OF THE TEETH, AND THEIR SURGICAL TREATMENT.

BY FRANCIS FOX.

Early decay of teeth which marks the present generation is due, the author thought, to malnutrition occurring in the earlier periods of life. At about seven months after birth a process of absorption is set up in the walls of the crypt and parts superimposed, and by this process the crowns of the temporary teeth become visible above the surface of the gums. When the crowns of the teeth have erupted this absorptive action for a time ceases, and a renewal of the developmental process ensues, by which the alveoli are built up around the fangs of the teeth. At about four years of age the temporary dentition is perfected, and soon after this perfection is reached absorption again sets in, commencing now in the fangs of the teeth, and these, together with their alveolar processes, are gradually removed, their permanent successors replacing them by a similar process of absorption of crypt and development of alveolar structures. The important point to bear in mind is the fact that the alveolar portion of the jaws is developed with each dentition, so that a previous alveolar structure can have little to do with the position of the succeeding teeth, except as it may present an obstacle to their onward progress in consequence of its non-absorption. As to the development of the jaw bones, Mr. Fox remarked that these bones consist of two portions, (1) an alveolar structure, developed with the temporary teeth, absorbed with them, and again redeveloped with the permanent teeth; and (2) a basal portion. This base is more prominently marked in the lower jaw, in which the inferior dental canal very emphatically indicates the junction between the two portions of the bone. The base of the jaw when once formed remains in pretty much the same condition throughout life, except in advanced old age, when the muscles of mastication are no longer in full use, and then in a slight degree it becomes wasted. In the superior maxillæ at birth the alveolar processes descend but little

below the level of the palatal plates, and the anterior and posterior parts are but little developed. As age advances the alveoli lengthen, the tuberosities increase in size, and an active development of bone takes place in these situations. The tuberosities are to the upper maxillæ what the coronoid processes are to the lower jaw. From these points the alveolar line is lengthened. In the lower jaw an alteration in the position of its articular surfaces and ascending rami, together with an absorption of the coronoid processes, accompanies the development of the posterior permanent teeth. The jaw elongates by additions to its posterior cornua. The capacity of the jaws in childhood is nearly equal to the anterior portions of the adult bones; for the ten anterior teeth of the permanent set in each jaw replace the temporary, and occupy the same position as these, so that this part of the jaw in adult life is pretty much the same as in childhood. If contracted then it will remain so throughout life, and no subsequent development in the posterior regions will tend to expand it. The replacement of the temporary teeth by their successors is effected by a purely physiological process, and is absolutely independent of pressure. There seems to be a physiological law by which the cells composing the absorbent papilla in the neighbourhood of a developing tissue have the power of absorbing a mature structure. That pressure has nothing to do with the process may be proved by the fact, that in cases where the shedding of the first teeth has taken place prematurely, a layer of bone has been observed to intervene between the crown of the advancing tooth and the base of the socket of its predecessor. At the time when the temporary teeth are about to be shed, in the well-developed jaw a decided separation between contiguous teeth is noticeable: and this circumstance is a fair indication of a future regularity in the succeeding dentition, and a proof that this portion of the jaw has already been prepared to receive the larger permanent teeth. If the process of absorption continues uninterruptedly, the fangs of the temporary teeth will be gradually removed, leaving little more than the shells of the crowns, which readily drop from the gum as

their successors are in turn ready to occupy their places. But should any arrest in this process occur (and such is far from an uncommon circumstance), these temporary organs are liable to offer considerable obstacles to the regular advance of their permanent successors. The causes of irregularity in the position of the teeth may arise during the developmental periods of life, and are then due to a want of proportion in the size of the teeth and jaws, or to a faulty development of the jaw bones; or the displacement may depend on some accidental circumstances arising subsequently, such as the prolonged retention of the temporary teeth, the presence of supernumerary teeth, the habit of "thumb-sucking," or the undue pressure from an hypertrophied tongue. There is abundant evidence to prove how frequently such deformity depends upon hereditary influences. The conditions of life to which our race has for so many generations been subjected seems to have lessened the necessity for the broad and well-formed jaws which were so characteristic of our ancestors, and for many years the advances in civilization have been marked by a deterioration in the capacity of our jaw-bones. Mr. Coleman, in some interesting investigations made several years ago, found that the percentage of contracted jaws was immeasurably greater in the children of the well-bred population than in those of less refined cultivation. The prolonged retention of temporary teeth is frequently associated with irregularity in their successors, and is probably often the cause of such irregularity. The presence of supernumerary teeth in the dental arch may prevent the normal members from assuming their proper places; but doubtless a disproportion of size between the teeth and jaws is of all causes of irregularity the most common. This disparity leads to a crowding of the teeth, sometimes to such an extent as to altogether prevent the eruption of some one or more of the dental series, such remaining impacted in the substance of the jaws. Certain injuries in early life may occasion displacement of the teeth, especially in the lower maxilla, such as the contraction of cicatrices about the face and neck. Mr. Salter, in his work on Dental Pathology and Surgery, treats the subject of

irregularity of the teeth under two heads—(a) simple irregularity, in which the misplacement is confined to one jaw, and is independent of the position of the teeth in the opposite jaw; (b) compound irregularity, which depends upon the position of the teeth in the opposing jaw. In “simple irregularity”—that is, where the misplacement is confined to one jaw—the crown only of the tooth may be irregularly placed, the apex of the root retaining its normal position; or the entire tooth may be displaced, or faulty in its development. Such irregular teeth are often entirely removed from the dental arch, and may be impacted in the substance of the jaw-bones. In the former condition, when the apex of the root retains its normal position, much good may be effected by judicious treatment, but in the latter case little can be done to remedy the evil, except by the removal of the displaced tooth. As examples of “simple irregularity,” we may mention the appearance of the upper canines above the alveolar ridge, or in the palate, owing to insufficient room for them in the dental arch. An early loss of their temporary predecessors, by permitting the first bicuspid and the lateral incisor to approach each other, is not unfrequently the immediate cause of this displacement. Sometimes, however, the retention of the temporary canine, or the presence of a supernumerary tooth, will occasion its deformity. An overlapping of the incisors is another form of “simple irregularity,” and frequently requires for its treatment a resort to some mechanical appliance in order to obtain regularity in the position of these teeth. Another not uncommon form of irregularity is where an incisor tooth is more or less twisted, sometimes to such a degree that the side of the crown will occupy the position of its anterior surface. A forcible twisting of the tooth into its right position is very generally adopted. Some, however, are averse to this prompt treatment, and suggest the employment of a plate carefully adjusted to the palate, and having certain properly-constructed points of resistance. An unsightly separation of the central incisors in the upper jaw sometimes occurs, and the teeth may be readily drawn together, but have a great tendency to return to their former

position. In treating these cases, great care should be taken to prevent the ligature from slipping below the edge of the gum—between the necks of the teeth and the gum,—for the irritation set up by such a mishap has been known to cause the death of the tooth. In order to prevent this displacement of the ligature, a small vulcanite plate may be constructed, to which the ligature can be attached, and thus prevented from shifting its position. The second form of irregularity of the teeth—that depending upon the position of the teeth in the opposing jaw—is much more complicated. As an example might be cited the “underhung jaw,” in which the “bite” is intersecting; some or all of the six front upper teeth being shut behind the corresponding teeth in the lower jaw. This condition, in its extreme extent, arises from an undue development of the lower over the upper jaw, or from a want of development in the superior maxillary bones. It may also arise from a retardation in the eruption of the superior incisors, or by these teeth being pushed inwards by the prolonged occupation of the dental arch by their temporary predecessors. An early treatment of this irregularity is all-important, and should consist in preventing the contact of the opposing teeth. An opposite condition of the lower jaw sometimes occurs, in which the lower incisor teeth bite close up to the palate, so that they press against the necks of the upper teeth, and push them forward. A separation of the teeth in the anterior portions of the jaws has been described, and is occasioned by a congenital malformation of the lower jaw. The early obliquity in the position of the ascending rami is unduly maintained, and there is a want of development in the alveolar portions of the jaws, especially in the regions of the molar teeth. This irregularity may be caused by the contraction of a cicatrix in the throat or neck. The bicuspid teeth are not infrequently misplaced, and, when so, they usually occupy a too inward position. This may arise solely from their having been prevented from assuming their proper position in the dental arch by the prolonged retention of the temporary molars. But usually it is dependent upon a diminished capacity of the jaw,

and in the upper jaw is generally associated with a projection of the incisors, and a more or less elevation of the palate constituting the V-shaped jaw, or "rabbit-mouth." This malformation is congenital, but, except in very exaggerated cases, is not very manifest until the posterior permanent teeth are about to be erupted, when the additions to the superior maxilla have been made in the posterior regions. The newly-formed bone, which has been gradually developing, is now found to be placed at an angle with the pre-existing alveolar line. This abnormal development has arisen in order to effect an harmonious arrangement with the other bones of the cranium. The maxillary bones having been imperfectly developed during early childhood, their posterior borders not being sufficiently divergent, the subsequent additions for adult conformation are placed in a wider circle; hence the point of junction between the two parts (the old and the new, so to speak) is marked by an angle of more or less extent. It is usually associated with great delicacy of constitution, and may occur in those of weak mental powers, but is often observed in persons of great intellectual capacity. The treatment of these cases consists in endeavouring to gain increased space in the dental arch, and to diminish the projection of the upper front teeth; but is, as a rule, more or less unsatisfactory. Irregularity in the wisdom teeth is sometimes met with, and may occasion most serious mischief, when extraction is the remedy. Transposition of the teeth is rare, and is usually met with anteriorly; and also inversion, which is still rarer.—*London Lancet*.

FOLLICULAR ABSCESS OF THE URETHRA.

BY PROF. FESSENDEN N. OTIS, OF NEW YORK.

The patient presented to the class was suffering from gonorrhœa, and besides, called attention to a small hard "lump" situated on the under side of the penis, in the median line, and about one inch and a half from the meatus urinarius. In reference to his gonorrhœa, the man stoutly denied recent venereal contact, although he acknowledged that a previous clap which he had three or four years ago was of

venereal origin. In this connection, Prof. Otis said, "It really makes no difference in your treatment of a gonorrhœa whether your patient says he got it from the seat of a water-closet or not, nor are you, as far as treatment is concerned, to always credit the various stories these patients tell about the origin of their trouble. You have the diseased state before you, and you are to treat it as it presents itself. And yet there may be a gonorrhœa without a venereal contact, which behaves exactly like a true gonorrhœa, and may have all the complications. In this particular instance, I do not see any special reason for doubting this man's word when he denies venereal contact. I once knew a case of this false gonorrhœa, which happened in a family of a gentleman who had several children. One of his children had a purulent ophthalmia, and it was customary for the gentleman to attend to the necessary manipulations about the eyes himself. Another of his children had some trouble with the penis, and this also the gentleman cared for. It was his custom to attend to the eyes first. After a day or two, however, a purulent discharge appeared from the other child's penis, and this was followed by swelled testicle. It was a case of gonorrhœa produced by infection from the ophthalmia. In fact, it is a common thing to have a gonorrhœa develop itself in a man who has had a stricture for ten or fifteen years, without venereal contact. I have seen men marry who had a slight gleet, and who were permitted to marry by their physicians, who communicated a gonorrhœa to the wife eight or ten days after marriage. I knew of one very fatal case of this kind, where a gentleman, in the first week after marriage, infected his wife's eye with gonorrhœa, which eye she lost, and shortly before the end of the honeymoon, the other also. This man may have a gonorrhœa without venereal contact. It is then a gonorrhœa by mediate and not direct contagion. In the mediate, there is a shorter course. It does not take a long time for the poison of a gonorrhœa, when exposed to the air, to be destroyed, which perhaps explains why so few of us become infected by this mediate contagion, and also why these mediate gonorrhœas run a shorter course.

The man has told us of this tumour on

the under side of his penis. It is situated an inch and a quarter from the meatus. I hold it under my finger. It is hard, presents no sign of fluctuation, and gives the man no pain. He tells us that it has been aspirated by his physician, but that no pus was found, so that, whatever it is, it is a neoplasm, but has not a purulent centre. It is too far forward for Cowper's glands. He says that at first it was about the size of the head of a small pin, and gradually grew larger. There are several things that must not be overlooked, which may have produced this tumour. "Have you ever had any sores on your penis?" "Yes." "Or lump in your groin?" "Yes." "Or eruption on your body?" "No." "Ever had sores in your mouth, or ulcerated throat?" "No, sir." "Hair come out a good deal?" "Yes, sir." The patient does not seem to have had any eye trouble or headache, or signs of nodes. I am trying to connect this tumour with syphilis—an attack which happened a long time ago, not a recent attack. If this growth is of syphilitic character, it is a gummous tumour. Last winter, you will remember, we had such a case, where the tumour ulcerated and was supposed to be an infecting sore. This growth, however, is not a gummy tumour. There is not the characteristic enlargement of the glands nor other corroborative evidence. What comes next, then? The most likely thing that I know about is a follicular inflammation. The urethra, as you know, is studded with follicles. They are very minute—not much larger than a cambric needle. They may become involved in the inflammation of the urethra, and a minute suppuration occur in the mouth of the follicle, which then may be closed—plugged up. This little molecule of matter burrows along and forms a sinus, making an independent opening, the pus being pushed back into the urethra from the outside. This is more likely to occur within an inch or half an inch from the meatus. The urethral end of the follicle becomes sealed up, and you have a follicular sinus left. A case of this kind was reported by me as far back, I think, as 1870. I remember a case of a gentleman with gleet, who had been treated a long time, but without success. On examining him, I found a little white point, the size

of a needle point, an inch behind the meatus. It had been there, he said, for a long time. Occasionally matter came out. I introduced a fine probe, and after injecting it with indigo, found the stain of indigo on cotton which I had placed in the urethra previously. I then sharpened a hypodermic needle down to a fine point, and introducing it into this little sinus, injected a forty grain solution of the nitrate of silver, and the gentleman had no more trouble. The sinus healed up, and his gleet got well. This little canal had been the seat of a gonorrhœa all the time, and the ordinary injections never reached the inflammation. I have found in cases where the same thing occurred, abscesses formed, which in some instances were absorbed, but in fifteen or twenty cases the matter came to the surface.

Dittel has shown the gravity of these cases where they occur in the deeper portions of the urethra, where, as a result of perforation, independently of stricture, extravasation of urine has occurred, which has proved fatal. This has been traced back to a follicle in the neighbourhood of the membranous urethra, the urine being let through in very small quantity at first, and then in larger quantities.

These bunches, then, come from the urethra following a gonorrhœa. They are not independent, but are the result of a suppuration. Why does this occur? I believe, and have found in every case, that they always occur in a follicle situated *behind a stricture*; that the condition of things which exists behind a stricture is the condition which invites this inflammation. Where there has existed a long standing irritation, it is not wonderful that there should be inflammatory action excited.

Dittel noticed that in all these cases there were *rings* of mucus in the urine. You have rings of mucus because they come from a circular point of irritation, which holds the mucus in the form of a ring. These rings of mucus are one of the signs of stricture, and these rings come from behind a stricture. So whenever you find a sudden swelling in the vicinity of the urethra, examine for stricture. I never fail to find it, and shall find it in this case before you. My own impression that here we have a stricture which has occurred after an

old gonorrhœa, and after a new irritation it has resulted in a neoplasm, an inflammation set up by the continuous irritation, and this is the result of stricture. Some years ago I called the attention of the profession to the case of a gentleman from a neighbouring State who was suffering from an obscure disease of the genito-urinary apparatus. It was supposed to be malignant, because of the ulceration of penis and scrotum. He had had a swelling in the scrotum, which kept increasing very slowly for five years, until it got to be the size of a child's head at term, very red and insensitive. He did not seem to be troubled at all by it. However, it became healthy-looking, and finally healed up, and then another abscess formed an inch above, and in ten days opened just as the first, and followed the same course; then another and another, each one higher up, until finally another abscess formed on the penis, which was followed by such inflammation that the foreskin became restricted and gangrenous; three or four openings into the urethra resulted, out of which he made his water. His scrotum had by this time regained its normal size. At last abscess occurred at the root of the penis, and was followed by urinary abscess. Then there was talk of removing the penis, and he came to this city. Here there were a number of opinions, but the feeling was that the trouble was lupous.

Then he came under my care. I thought he had a follicular sinus which came from behind a stricture, and on passing a bulbous sound, I found a stricture which warranted me in the conclusion that the urinary infiltration had got into the tissues, and had resulted in the formation of a neoplasm in the scrotum. This slowly increased by almost imperceptible degrees, because of the gradual addition of urinary material until when the health became depressed, the tissues could resist no longer, but gave way at the most dependent point. The resulting inflammation closed up the sinus for an inch or two; then the urine settling at that point, gave rise to another abscess, each abscess closing up the line of tract, until the penis was reached. When he came to me, he had been suffering from a terrific amount of reflex irritation, keeping him from sleep, an amount of irritation

which I have never seen except in connection with stricture. His urethra had never received the slightest attention, and on passing a sound, during which I thought he would have had an active epileptic convulsion, so sensitive was the urethra, I discovered three strictures, which I divided. The result was that he was relieved from the irritation which had been so disgusting. The relief was *immediate*. The next morning he said to me, "Doctor, for such a night of rest as I passed last night, I would be willing to undergo that operation every day." The abscess healed in ten days, and he became perfectly well.

I have told you this long story to show you how important it is to recognise and properly treat these hard, insensitive bunches. They may give the patient no trouble for the time being, but they will at some time or other. Whenever you find these bunches on the under side of the urethra, get into them as soon as you can. They are usually hard, insensitive, sometimes there are four or five little hard bunches. Sometimes these come from behind a stricture where you could pass a twenty-six or twenty-eight sound. Such a case I saw in consultation once. A young gentleman had one of these swellings in the urethra, and the attending surgeon cut down to the urethra, but not into it. Suddenly the swelling returned, and this time there was no mistake about it; a section was made into the urethra, a stricture divided and the gentleman made a good recovery. Here the follicular departure occurred where you could pass a twenty-six or twenty-seven sound.

Early operation is the rule in these cases. Remember that you are having urine leak into the tissues all the time through these little sinuses; it need not be large in quantity; it may be only enough to produce neoplastic material, but it goes on all the time; and if the thing is not looked to and remedied by early operation, it will prove a source of trouble at some time or other, which trouble was clearly *preventable* by seasonable interference.—*Virg. Medical Monthly*.

Dr. Eckhardt, of Unionville, died suddenly last month.

OBLIQUE SECTION OF THE SKIN IN SURGICAL OPERATIONS.

BY JOHN H. PACKARD, M.D.

In the great majority of the cutting operations of surgery, it is an object to attain as early and as effectual closure of the wounds made as possible. The exceptions are those which are undertaken for the purpose of establishing artificial openings, as for example tracheotomy, colotomy, gastrotomy, etc. And in ligation of arteries in their continuity, the presence of the ligature must of course prevent the closure of the track in which it lies. Yet in almost all even of these cases, the wound in the skin must be of such extent that a large portion of it may be healed without interfering with the result aimed at; while not only the comfort but the well-being of the patient is promoted by the early exclusion of the atmosphere from the deeper tissues.

Another advantage is gained by the avoidance of unnecessary scarring. There are many cases of excision of tumours about the face, neck, or hands, in which the persistence of unsightly marks would give rise to a degree of mortification to the bearers of them, which it is not beneath the dignity of surgical science to endeavour to prevent. And I think that it may be asserted that whatever adds to the precision of our procedures, or to the elegance or neatness of our results, is worthy of a place among the resources of our art.

Unless exception is taken to the correctness of these premises, an apology will hardly be needed for the suggestions to which your attention is now asked.

About six years ago, my attention was accidentally called to the fact that after oblique division of the skin, healing took place readily, and the resulting scar was small as compared with that usually left by vertical section. I was summoned to a woman who, while carrying a glass dish, had fallen and sustained a severe wound on the hand, which extended from the wrist to the knuckle-bone of the ring-finger. By the peculiar position of the edge of the fragment, the skin had been cleanly divided in an extremely oblique direction. Healing took place promptly, and to my surprise and

the patient's gratification, the cicatrix was very much smaller than might have been expected from an injury so formidable in appearance as this had been.

It occurred to me to imitate this accident in surgical procedures, with the view simply of lessening the ensuing disfigurement—nor was I disappointed. On one occasion having removed an old bursal tumour from over the patella, I was unable to find the line of junction between the edges of the section of the skin.

Now, the mere lessening of scars has more than a cosmetic value. Every one knows how apt they are to be for a long time the seat of tenderness, sometimes exquisite, and how sensitive they often are to cold, as well as to barometric changes. By reducing the exposed portion of cicatrix, we do much to obviate these inconveniences, which are especially annoying to the working classes, among whom the accidents requiring operation are by far the most frequently met with.

Another danger to which scars are very liable is that of the development of keloid tumours; and the closer the union, the less of what a few years ago was called by microscopists *inodular tissue*, the less will be the probability of this very troublesome and intractable disease.

Quite recently it has occurred to me to develop another and much greater advantage of the oblique section of the skin, namely, the avoidance of suppuration, and the obtaining of very prompt and firm union between the cut surfaces. The *rationale* of this advantage can be easily seen. We have a close apposition of very wide surfaces, with exclusion of the air from the cavity of the wound, by means of a strictly valvular arrangement—the apposition of the edges being moreover favoured by atmospheric pressure.

An application of the same principle in the arts affords an excellent illustration of the idea I am trying to urge.

It is often necessary to make belting, for the use of machinists, of a length much greater than could possibly be got from a single strip of hide. Hence several pieces have to be put together, and this joining or splicing must be done so as to be as strong as possible. For this purpose the ends of the pieces are bevelled

off, or, as the technical phrase is, are *scarfed*. Sometimes they are said to be chamfered, a term borrowed from architecture, and usually corrupted into *chamfered*.

These scarfed edges being then applied to one another, and fastened either by gluing or by rivets, afford at the same time a very strong connection, and one which involves no thickening of the belt, which would interfere with its running. It is indeed often difficult to detect the exact line of junction.

The scarfing is done by means of a machine, with very great accuracy. I exhibit samples of it, and they will show the principle better than any description could.

Sometimes the scarf or bevel is made very long, and then of course it approaches much more nearly to parallelism with the surfaces of the leather. I measured the junction between two pieces of a belt in use, a few days since, and found it twenty-two inches.

Let me now briefly state a few typical cases in which I think I may claim that this procedure has been the direct means of effecting the best possible results.

A woman, æt. 52, came under my care with a mammary tumor requiring excision. The skin was very slightly involved. By means of two bevelled incisions I removed a mass equal in bulk to that of my two fists—going well into the healthy areolar and adipose tissue around the gland and tumor. A number of vessels which required ligation were secured with carbolized catgut, the ends of which were cut off short. The oozing of blood was thoroughly controlled by constant sponging with hot water, and the surface of the cavity, at the conclusion of the operation, was perfectly dry and clean. The wound was closed with three points of the hare-lip suture, and adhesive strips. Carbolized cerate was applied as a dressing, and gentle, equable pressure made with a pad of raw cotton.

On the third day the pins were removed. On the fifth the wound was found to be solidly united from one end to the other, there not having been a fluid drachm of pus formed.

Another case was that of amputation of the forefinger at the metacarpo-phalangeal joint, for injury by the thrust of a needle, causing cellu-

litis and wasting, with painful atrophy of the soft parts. The incisions were so made as to bring the cicatrix on the upper part of the stump, the outer flap being bevelled from within outward, the inner from without inward. Here there was some subsequent pain, and a dressing of hot laudanum was applied for about twenty-four hours. A perfectly dry healing ensued, with an absolutely linear cicatrix. No dressing whatever was used after the third day, a strip of dry lint only being put on as a protection.

Another case was one of strangulated inguinal hernia of the right side, operated on April 19th. The incision was made by carrying the knife in very obliquely, and dividing the skin in that manner for the requisite distance. The hernia was reduced without opening the sac. One vessel required ligation, which was done with carbolized catgut. Four or five hare-lip pins were employed for the closure of the wound, and one silver-wire suture, fastened with lead plates at either end, through the deeper tissues. A superficial silver-wire suture was also used at the lower end of the wound. All these sutures were removed on the third day. No dressing was used but carbolized cerate, with a thin sheet of raw cotton over the whole of the region involved. The healing, although not absolutely dry, was very nearly so; there was never more than fl. 3 i. of pus on the lint taken off. The cicatrix is a mere hair-line in appearance, and there is no tenderness, even on firm pressure.

No argument is necessary to show the advantage, in such a case as this, of a firm and deep union of the edges of the wound, with as small an amount as possible of cicatricial tissue to be pressed upon by a truss, which prudence will oblige this patient to wear for a time.

These cases have been selected as typical of the various classes of operations, and will answer as well as a much longer series in illustration of what I think is the value of this method.

Beveling the edges of wounds made in rhinoplastic operations has been practised by many surgeons, notably by the elder Pancoast, of Philadelphia, whose "tongue and groove"

suture was a marked element of the brilliant success of some of his procedures of this kind. It has not, however, been generalized in the practice of surgery, as in my humble opinion it may be to great advantage.

There are cases in which it is desirable to employ drainage, either by means of a tube of silver, rubber, or decalcified bone, by carbolized silk or by horsehair. I am well aware that the need and advisability of this is doubted by many surgeons, and am ready to admit that drainage has been applied by some in a wholesale and routine manner, in every case, with perhaps injury to the patients, or at least to some of them. But when it is thought proper to establish an outlet, this may be done perfectly well with oblique section of the skin. Indeed, if desired, a sufficient portion of the incision may be made in the ordinary vertical method, at a suitable point, and the remainder may be made obliquely, so as to promote its healing.

I have not yet employed this oblique method of incision in any large amputation, as I have been experimenting with it in order to make sure of my ground; but should confidently look for like advantages in such operations as in those above mentioned.

It is a matter of much importance that the scalpel or bistoury used should be very sharp, in order to make the cuts with the utmost accuracy. The plane of incision should be as much inclined as possible. Of course, the apposition of the cut surfaces should be most carefully and exactly effected, and where a cavity is left, as by the removal of a tumor, gentle and equable pressure should be so made as to close the tissues in and fill it up. Carbolized cerate forms an excellent immediate dressing, with or without laudanum, alcohol, dilute tincture of iodine, or other customary applications. My own preference is for the laudanum, with a wrapping of raw cotton, generally covered with waxed or oiled paper.

May I, with much diffidence, venture to hope that the modification which I have had the honour to urge upon your attention may be found really to be a contribution to that anti-septic surgery at which we must all aim?—
N. Y. Medical Record.

DIAGNOSIS OF STRICTURES OF THE URETHRA.

BY M. GUYON.

The diagnosis of stricture of the urethra is often made in a common-place manner. Every bearer of a chronic discharge, of a gonorrhœa which has only an exceptional duration, is accused of stricture. Doubtless it is sometimes exact to say that chronic discharge means stricture, but great care must be taken not to expand this idea too much. There is a very great number of patients who have a chronic discharge due to other lesions than a stricture. It is still less necessary to admit that stricture exists with a gonorrhœa dating from only three or four months. It is not after this delay, but after two or three years, and often more, that the stricture is produced. With how much more reason still are we mistaken when we attribute a stricture to those who have difficulty in micturition: in half of the cases we commit an error; likewise when the jet is deformed, which is due to a crowd of other causes, and notably to the greater or less repletion of the bladder.

Here is then a series of diagnoses of probability often made by the patient, but also too often accepted by the physician. At the very time even that we make a direct examination we often err, because having tried to introduce an instrument, and finding that it has not penetrated, we conclude in the existence of a very narrow stricture.

First of all, it must be known where the instrument has been stopped, and in what region. I here raise my voice against a habit adopted, however, by the most experienced surgeons: in order to determine the seat of an obstacle, the distance traversed by the sound is measured, and it is said that there is a stricture at so many centimetres. It does not follow because we have said, There is a stricture at eleven centimetres, that we have determined its precise seat. You will determine the seat of a stricture only by taking the anatomical landmarks of the region on which the stricture bears.

This is a point which is too often neglected; one indicates neither the extent nor the peculiar physical qualities of the stricture. One

thus allows to escape at the examination a portion of the anterior canal, from the perineum to the meatus—a portion in which, however, we often find contracted points.

Such are the numerous errors to which in general we are exposed; they are so numerous that I believe there is no point in pathology where we accumulate so many errors.

We are mistaken because we neglect to interrogate the patient, to seek the etiology, which, however, has a value so absolute that, beyond certain conditions, certain patients can have no strictures, and have absolutely no right to them, notably those who have had no gonorrhœa nor urethral traumatism.

We have seen, in No. 22, a patient who on two occasions has demonstrated to us the absolute value of the etiology. He is a boy of seventeen or eighteen years; he presented all the symptoms of stricture. In making a very methodic examination, we found that the canal was contracted; we had the sensation of a stricture at the level of the membranous sphincter. Now, he had had neither gonorrhœa nor traumatism. In spite of the symptoms, it was then necessary to affirm that he had no stricture. I introduced at the outset a sound No. 48, which demonstrated the absence of stricture in spite of the rational and objective symptoms.

A second cause of error is the defective fashion in which the direct examination of the canal is made. Many surgeons make use of bougies; they are not to be absolutely rejected, I say it very openly, but I affirm that the bougie is not the exploratory instrument of the urethra. You ought to examine the urethra with the olive bulbed explorer, with large extremity and small stem. One feels only with the swollen extremity, and one explores successively all the portions as the bulb advances. A bougie, on the contrary, touches the canal equally in all its parts, and can give no precise notions of its conditions.

The olivary bulb must be used methodically; you ought to touch successively all the parts, but always to know well to what point you have come. It is not by counting five, six, ten centimetres that you will know it; it is in examining the urethra by regions. I divide it

into four regions: 1. The region of the navi-
cular fossa; 2. The *penile* region; 3. Scrotal re-
gion; 4. Perineo-bulbar region. You ought
always to refer the point of arrest to one of
these regions at its entrance or at its termina-
tion. How may we determine this region? The bulb is very easily felt in the course of the
soft parts; it suffices then to seek for it with
the finger.

In order to draw from it all results, it must
be remembered that strictures are multiple;
the anterior strictures are relatively large, and
if you employ too small a bulb, you will not
find the strictures which are situated in the an-
terior portion so often mistaken.

For the exploration, it is necessary to take
the calibre eighteen or twenty. When the
patient will see you armed with a bulb of this
size, he will not fail to cry out that this will
not enter. Be not afraid, and answer quietly
that you wish only to try the front of the
canal, and that you do not wish to pass the
stricture. This introduction otherwise does no
harm. Just as in catheterism, to empty the blad-
der we think only of passing, without being
preoccupied with the state of the canal: this is
wrong. Here it is far better to take a volumi-
nous instrument, and to stop at the first ob-
stacle; take then No. 15, then 12, 8, 6, always
diminishing. In this manner you will have ex-
amined all the urethra, and made the scale of
the stricture.

This methodic examination is the only one
capable of preventing you from making an er-
ror as to the situation.

When the bulb is arrested in the urethra,
seek at what point with the finger: if you do
not feel it in the perineum, you will reach it by
touching through the rectum; you will feel it
then in the deep urethra in the membranous
region, in which there are no strictures, save
those which are consequent upon wounds or frac-
tures of the pelvis, which your patient would
certainly not have failed to speak to you about.
Know then that once the bulb is in the prostatic
region, you have no longer to do with a stric-
ture. We have here in our museum an
anatomical specimen of adhesion of the two
lobes of the prostate which passed for a
stricture.

It is necessary to determine the extent of the strictures. With the olivary bulbs you will judge perfectly of the extent of the stricture. So long as there is no uniform attrition ; so long as the stem gives you multiple sensations of checks, or rather jerks, you are in a contracted and irregular canal. It is here that you will measure, on the stem of the explorer, the distance pursued from the entrance of the bulb into the stricture, until its exit from this stricture.

The configuration of the stricture is also important to know, but it is less easy to determine. Pathological anatomy teaches us that it is especially the inferior wall of the canal which is implicated, the superior wall being relatively healthy ; you will not feel it exactly by the exploration which does not render you a good account of the wall touched.

As to the consistence and the resistance of the strictures, they are still two points important to state precisely. However, the best made methodic examination will still leave you some lacunæ in this respect. Error is even not impossible, for one may be clearly stopped and infer a stricture, when there exists no trace of one. You see then that it will not be superfluous to accumulate all the precautions that I have exposed to you, and to put them all in practice, if you wish to arrive at a reliable diagnosis of strictures.—*Gaz. des Hôp.*

A CASE OF GONORRHOËAL OPHTHALMIA, WITH SOME NOVEL SUGGESTIONS AS TO TREATMENT.

BY GEORGE CRITCHETT, F.R.C.S.

As a general rule, I have been unwilling to encumber medical literature with isolated cases, but I am disposed to think that exceptions may occasionally occur in which, either from extreme rarity or the initiation of some new method of treatment, or, at any rate, a method very rarely employed and but little known, some fresh starting point may be established. Acting on this principle, and influenced by these motives, I am induced to bring the following case before the notice of the profession :—

Louisa C—, aged two and a half years, was brought to me at Middlesex Hospital on the 15th of May, 1878. Her left eye presented

all the appearance of acute gonorrhœal ophthalmia, and the collateral circumstances confirmed this diagnosis, as the child had a profuse yellow discharge from the vagina, with considerable swelling and irritation of the mucous canal. The lids were of a bright red colour and much swollen, and so densely infiltrated that even when the child was placed under the influence of an anæsthetic it was found impossible to separate them so as to ascertain the condition of the cornea. Yellow and rather thick matter was exuding from between the lids.

Judging from past experience, seeing the extreme acuteness and severity of the symptoms, the difficulty in separating the lids or exposing the cornea, and the impossibility of getting any solution into contact with the conjunctival surface, I relinquished all hope of saving the sight. I have never in the course of my experience known such a condition eventuate otherwise than in the total destruction of the eye. Under these circumstances I determined to adopt a somewhat heroic and novel proceeding, and one that has not, I believe, been published. I passed a small silver director under the upper lid as far as the edge of the orbit, against which I kept it pressed ; and then, with a small, sharp-pointed bistoury, I completely divided the lid perpendicularly as far as the margin of the eyebrow. In order to more completely uncover the cornea, I separated the two angles of the divided tarsus, and fixed them with fine sutures to the skin of the eyebrow. The cornea looked steamy, but not ulcerated, and was buried in chemosed conjunctiva. The immediate effect of this proceeding was to diminish the redness and swelling of the lids and conjunctival membrane, and completely to expose the surface.

In the subsequent treatment of the case I was materially assisted by the house-surgeon, Mr. Dixon, who carried out my directions with great care, skill, and assiduity. A solution of nitrate of silver—thirty grains to one ounce—was painted over the entire surface of the conjunctiva three times daily, the eye was frequently cleansed and syringed with a solution of alum—ten grains to one ounce—and a piece of linen moistened in the solution was kept constantly applied. This plan was continued, with gradual abatement of the symptoms, for a

month; a weaker solution was then substituted; and at the end of six weeks from the commencement of the treatment the eye had recovered with a perfectly bright, healthy cornea.

At the termination of another fortnight the child was again placed under the influence of an anæsthetic, when I pared the edges of the divided lids and brought them together with fine sutures. Good union occurred, the deformity is very slight, and the lid perfectly performs its function.

I may add that during the early part of the treatment the other eye was kept carefully closed with strapping, so as to prevent any risk of inoculation.

To some it may seem that this rather novel proceeding was of too heroic and severe a character, but it at least had the merit of success. Every case of gonorrhœal ophthalmia, the result of direct contagion, that has come either under my care or under my observation has been so uniformly attended with loss of the affected eye, that I should certainly adopt a similar proceeding on any future occasion, and I beg to commend it to the attention of the profession. It seems to fulfil every indication: it relieves the immediate tension, and the strangulation with which the cornea is threatened; it permits the free escape of the matter, and enables the surgeon to make a thorough use of caustic and astringent remedies; while the slight subsequent scar on the lid is a small price to pay for a rescued eye.—*Lancet*.

TREATMENT OF PALMAR AND PLANTAR SYPHILIS.

Edward Wigglesworth, in *Boston Medical Journal*: Solutions of corrosive sublimate are, according to Sigmund (*Wien. Medicin. Woch.*), pre-eminently the means for the dispersion of syphilitic new formations of the secondary group, papules, pustules, and scales; but the application must not be left to unskilled hands. With care, scar and pigment formation, in fact the further development of all forms, may be prevented by brushing with a solution (one to fifty to one hundred) and a camel's hair brush twice or even once daily the spots affected, at the first appearance of cry-

thema or of infiltration of the follicles and papillæ. If the first use of this is made early in the morning, it can then be seen in the course of the day whether the skin will bear a repetition of the same lotion or not, or whether it may not be needful, on the contrary, to make some counteracting and soothing application. If so, the best preparation is the solution of acetate of lead in water (one to twenty). With this, one or two hours after brushing with the sublimate solution, compresses are to be well soaked, and at once laid upon the spots. This lessens pain, without essentially interfering with the peculiar efficiency of the sublimate. Should pain immediately follow the brushing on of the mercury, the lead lotion may also be at once applied. For each bathing fresh brushes must be used, or the old ones must be well washed out; otherwise the sublimate remaining in the brush after drying will make the next application a too caustic one. Before every new brushing the skin must be washed clean with soap and water. The best vehicle for the sublimate is: for the palms and soles, collodion; for more delicate parts of the body, alcohol; for mucous membranes, ether. When the first is employed, a little fresh linseed or other oil should be added to the vehicle—one part of oil to twenty of collodion. This makes a flexible, elastic covering, permitting motion of the hands and feet without causing cracking of the collodion layer. Sigmund writes for hydr. corr. chl. one. olei lini recentis one, collodium fifteen to twenty-five. This is rubbed upon the lesions on the palms and soles in the morning. At night, white ppt. ointment; hydr. ammoniat. five, ung. simp. twenty-five, is well rubbed in, and gloves and socks used as covering during the night. For older and more inveterate cases the skin is first to be softened by soap and warm water, lotions, and ointments; chaps and cracks to be covered with strips of cloth smeared with emplast, saponis, empl. hydrarg., of each p. æq., and packed comfortably in compresses. So also local inunction of ung. hydr. at night for ten minutes, and in the morning employment of the same spread on cloth after the brushing on of the collodion. Then gloves and socks by day and night both.

Palmar and Plantar syphilis is a late symptom, resists treatment obstinately, lasts long, and tends to relapse. It is often the only existing sign of the presence of the disease, and then needs only local and general hygienic treatment. When other symptoms are present, constitutional specific treatment is demanded. Cleanliness and good diet are of the utmost importance.

Translations.

WASH FOR CHRONIC PHARYNGITIS.

Ergotine.....	grs. xvj.
Tincture of iodine.....	m. xlv.
Glycerine	3vj.

Make a solution.

With a brush dipped in this solution touch twice a day the bottom of the throat, in cases of chronic pharyngitis and hypertrophy of the tonsils.—*L'Union Méd.*

THE RAPIDITY OF TRANSMISSIONS BY THE PNEUMOGASTRIC NERVE.

M. Marey, at the Acad. des Sciences, presents a note, in behalf of M. Francois Franck, on the rapidity of transmissions by the pneumogastric nerve. It is known that excitation or lesion of this nerve arrests the movements of the heart. If the nerve is cut in the middle of its tract so rapidly that the impression will not have time to go to the brain and return to the heart, the movements of this last are not modified. If, on the contrary, it is cut slowly, the heart is stopped. M. Francois Franck has sought to give a precise value to the words *rapidly* and *slowly*, and he has proceeded to this end by means of an electric index, which marks the duration of the section. When the section has taken only a tenth of a second, the heart is not arrested; above one-tenth of a second, it is stopped. We thus have the time necessary for transmission to take place.—*L'Union Méd.*

Dr. Terrillon, in a lengthy paper upon polypoid excrescences of the urethra symptomatic of tuberculization of the female urinary organs, concludes as follows:—

Polypoid excrescences of the urethral orifice in women may present, in an etiological point of view, two distinct varieties.

Some are idiopathic, or are due to a slight irritant cause. The prognosis is good. Abla-

tion in these cases is rapidly followed by recovery. They are the most frequent.

The others, on the contrary, although possessing the same exterior characters as the preceding, accompany or precede tubercular metritis or cystitis, of which they constitute an important symptom.

Their prognosis is grave on account of the general affection. They may serve to establish the diagnosis of tuberculosis of the urinary organs, often so difficult in women.

Treatment gives no relief, or it is only momentary.—*Le Prog. Méd.*

MENSURATION OF THE HEART.

Dr. Boudet sums up a paper on a new method of measuring the heart in the following propositions:—

1. The sigmoid shock of the pulmonary artery, compared with the shock of the apex of the heart, may serve as a base for a process of mensuration of the heart.

2. This process has, on the other processes employed up to the present, the considerable advantage of supporting itself on two *points de repère*, referred to the heart itself, movable like it, and whose relations consequently with one another and with the thoracic walls will always have, whatever may be the displacements of the heart, the same signification and the same value.

3. Thanks to this process, by the fact of the mobility and the variation of the points where we perceive the sigmoid snapping of the pulmonary artery, we may establish, contrarily to the opinion generally admitted of the pivotment of the heart on its base, the frequency of the displacement of the heart *en masse*, and the influence of this displacement on its changes of situation and the appreciation of its volume.

4. Lastly, by the fact of information so precise which it gives us of its length, the direction of its ventricles, and the seat of the two orifices, pulmonary and aortic, this process is supported, for the determination of the volume and of the situation of the heart, on data infinitely more certain than any of those known up to this day.—*La France Méd.*

ENURESIS IN SYPHILIS.

(Translated by A. A. RIDDEL, M.D., Toronto.)

Dr. G. Wertheim, of the Department for Skin Diseases and Syphilis in the hospital "Rudolf Stiftung," in Vienna, states that this troublesome condition, which so disturbs the patients at night, leaves their beds in a filthy and disgusting condition, and annoys and irritates those who have to sleep in the same ward with them, is dependent chiefly upon the too sound sleeping of the afflicted. After exhausting all the therapeutical remedies recommended in these cases without favourable result, it occurred to him that the deep sleep was probably occasioned by the soft beds on which the patients lay. In order to test the matter, he proposed to a male patient, whose case was one of the most refractory with which he had had to do, that, when all around him were asleep, he should slip out of bed and lay upon the floor, with nothing under him but a thin cover over the floor and a bolster under his head, the body being warmly covered. The patient, anxious to do anything that might promise to alleviate his sufferings, complied with the suggestion, and behold! (*Siche da!*) the very first night he awoke every two hours and used the chamber. Towards morning he slipped into bed again without awaking any of those near him. This he continued for two weeks, when Dr. W. had his bed removed, and the patient thenceforth slept upon a mattress with a board under it. The good effects still continued, and he was finally discharged cured. Subsequently the same, (the latter, we assume) treatment was carried out with a woman, who was a nuisance to herself and an abomination to her fellow-patients, with a like good result.

Dr. W., in speaking of diurnal enuresis, condemns the advice given to patients to empty the bladder frequently, using the catheter where necessary to accomplish this object. He recommends, on the contrary, that the urine should be retained as long as possible, and voided only when compelled by the utmost necessity. In those cases where this plan had been tried, and of which he had received information, it had proved successful, the constrictor-urethra proving itself tractable—meaning, doubtless, ultimately recovering its tone.—*Wiener Mediz. Wochens.*

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, AUGUST, 1880.

THE NEW ONTARIO MEDICAL COUNCIL.

We have deemed it wise, in the interest of our subscribers and the profession, to devote a large portion of our space this month to the proceedings of the last meeting of the Ontario Medical Council, hoping and believing that everyone will not only "read," but "mark, learn and inwardly digest" them. There has for some time been a loud outcry made by the "would-be majority," that certain legislative acts should be done by the Council. A number of gentlemen were returned on this ground, and strongly advocated the views of their constituents. We give all credit to their enthusiastic endeavours, which, unfortunately, almost invariably were defeated by the votes of those who, we think, knew what was best and right, working as they were in the interests of the profession at large. Though we can hardly support the view of members who advocated that the Executive Committee should consist of President and Vice-President; or that of another member, that there should be no Executive still we must give in our adherence to the belief that such a Committee would redound far more to the credit and profit of the profession than the useless, unwieldy and expensive Committees proposed by other members. We approve of the passing of the motion that the Provincial Intermediate High School Examination, with Latin added, be accepted as equivalent to matriculation before the Council. With reference to one of the great bones of contention, *i.e.*, the Treasurership, we need say little, as the Council

by a large majority, refused to act discourteously and dishonourably towards one who had served them so well in the past, and thereby showed himself willing and capable of serving them (and through them, the profession) well in the future. By contrast, it was a matter of regret that so prominent a man, and so successful a teacher, should have condescended to attempt to use his influence and abilities to oust a good worker from, what was to him, a thankless office.

Upon the financial position of the Council we cannot offer congratulations. A rigid enforcement of the payment of the annual assessment is necessary, and will, we hope, now be carried out. It is to be regretted that disputes that may involve law-costs to an already impoverished treasury should arise, but we agree with the majority that the dignity of the Council should be upheld. We think, however, that a new member is not carrying out this view when, in the face of a deficit, he succeeds in passing a motion to increase the pay of members to the sum of ten dollars a day.

The selection of Dr. R. A. Pyne as a successor to his father, the retiring Registrar, was a happy one; and we doubt not that the interests of the Council will be looked after by him as closely and as disinterestedly as they have been by his worthy and esteemed predecessor.

OBITUARY.

We have to record, with great regret, the death of Dr. Thomas White, of Hamilton. One so well known to graduates of Toronto University needs no words of ours in praise of his memory. He was a good student, and an unusually successful practitioner. He filled for several years, with credit to his University, School, himself and the profession, the important position of Coroner for Hamilton, and also that of Surgeon to the Hamilton City Hospital.

JOURNALISTIC.—Among our new and useful exchanges is "The Industrial World and National Economist," devoted to Home Industries, Commerce, Finance, Insurance, Railroads, and Mining. It is issued every Thursday. Subscription, \$3 per annum. Communications to be addressed to Drawer 1010, Ottawa, Ont.

ONTARIO MEDICAL COUNCIL.

ANNUAL MEETING OF THE COLLEGE OF PHYSICIANS AND SURGEONS.

FIRST DAY'S PROCEEDINGS.

The Council of the College of Physicians and Surgeons of Ontario opened its annual session in the Council Chamber, Bay-street, on Tuesday, the 13th ult., at 2 p.m. The meeting was called to order by the Registrar, Dr. Pyne. The following members answered the roll:—Drs. Bergin, Bray, Brouse, Burns, Burritt, Clark, Douglas, Edwards, Geikie, Grant, Henderson, Husband, Irwin, Lavell, Logan, Macdonald, Morden, Mostyn, McCammon, McCargow, Spragge, Vernon, Williams and Wright.

ELECTION OF OFFICERS.

Dr. CLARK intimated that the first order of business would be the election of a President. He moved, seconded by Dr. EDWARDS, that Dr. Allison be President of the Council for the ensuing year. The motion was carried.

Dr. BROUSE nominated Dr. Bergin as Vice-President. Dr. GRANT seconded the motion, and it was declared carried.

In the absence of Dr. Allison, the President, the chair was taken by the Vice-President.

COMMITTEES.

Dr. BRAY moved, seconded by Dr. McCAMMON, "That Drs. McCargow, Spragge, Lavell, Wright, Henderson, Morden, and the mover constitute a Committee on Credentials." Carried.

Dr. GRANT moved, and Dr. McCAMMON seconded, "That the Committee to nominate the various Committees of the Council be composed of the following members:—Drs. Ellis, Lovell, Henderson, Brouse, Spragge, Burns, Mostyn, Edwards, Macdonald, Bray, Burritt, Williams, Logan, McCargow, and Geikie." Carried.

After an adjournment of half an hour, the Selecting Committee reported the following appointments on the various Standing Committees:—

Education.—Drs. Wright, Grant, Brouse, Clark, Logan, McCammon, Edwards, Burns, Bray, Williams, Lavell, Burritt, Morden, and Macdonald.

Finance.—Drs. Mostyn, Irwin, Henderson, McCargow, and Douglas.

Registration.—Drs. Spragge, Vernon, Geikie, Lavell, Mostyn, and Edwards.

Rules and Regulations.—Drs. Brouse, Clark, Spragge, Wright, and Logan.

Printing.—Drs. McCammon, Morden, Burritt, and Clark.

The report was adopted with an amendment adding the name of Dr. Burns to the Committee on Finance.

NOTICES OF MOTION.

The following notices of motion were given, to be brought up for discussion at a future meeting:

By Dr. Geikie—That hereafter the Registrar shall be instructed to furnish a digest of the Council proceedings to the medical journals of Ontario.

By Dr. Clark—That for the present session the sum paid to members of the Council shall be as follows:—To those residing outside of the city, \$3 per day and necessary travelling expenses; no remuneration to be paid to residents of the city.

By Dr. Clark—That the President and Vice-President shall act as an Executive Committee for the ensuing Council year, with power from time to time to add to their number not more than three more members when special business affecting the medical schools, the homœopathic body, or anything concerning the by-laws of the Council shall require urgent and immediate consideration.

By Dr. Burns—That those parties who in Ontario have passed the Government intermediate examination, and have passed therein in equivalent to second-class certificate, be put on the same footing with graduates in arts and matriculants in arts in universities in Her Majesty's dominions, and may, like them, register their names as matriculants in medicine with the Registrar of the College upon payment of the fee of \$10.

By Dr. Macdonald—That parties possessing the diploma or the certificate of associate in arts of the University of McGill, Montreal, and of Bishop's College, Lennoxville, be admitted as matriculants in medicine on payment of the fee of \$10.

By Dr. Geikie—That the Executive Committee shall for the coming year be so large as to make it thoroughly representative in character, with the view of its giving satisfaction and confidence to the profession, and in consideration of the most important character of its functions.

By Dr. Burns—That the Registrar furnish the Council with a statement of the number of registered practitioners who have paid their annual dues for the last five years.

Dr. LAVELL called attention to the fact that many of the members were absent. At previous sessions of the Council it had been found when members absented themselves from the evening sittings that the work done at such sittings was largely overruled and considered at the meeting on the following day. He thought that at the opening of the present session they should adopt some measures to protect the labours of those who were anxious to get through with work from being annulled in the fuller meeting on the next morning.

Dr. CLARK agreed with the last speaker. He thought they should resolve to adhere to their work when transacted by a quorum.

Dr. H. H. WRIGHT moved, seconded by Dr. LAVELL, "That any matter once decided upon shall not be reopened during the current session, except on a vote of three-fourths of those present in its favour." Carried.

THE NEW EXECUTIVE COMMITTEE.

Dr. GEIKIE moved "That the following gentlemen constitute the Executive Council for the ensuing year:—President and Vice-President *ex. officio*, Drs. Wright, Lavell, Husband, Bray, Burns, Edwards, and the mover." He thought it highly necessary that this most important Committee should be larger and of a more representative character than had been the case in the past. This would tend to make it more popular with the profession, and there would be no difficulty in having large additions to the funds from the dues and rates which would be received. A great deal of money would have been saved which had been expended in lawsuits in the past, if the Committee had been larger, and had represented more the whole profession.

Dr. CLARK thought it would be better to leave the motion in abeyance until a fuller attendance of the members was obtained. It was usual to appoint this Committee at a later stage of the session. He did not consider it necessary to have a large Committee, as at the best they were expensive, and he believed it to be in the interest of efficiency as well as economy that the members should be kept down. He claimed for the last Executive that it had performed its work well.

Dr. BURNS thought that the last Committee did not fully come up to what was required or expected of it. As one instance of their mismanagement he would allude to the monstrous procedure by which they extracted from those students who were unsuccessful in their examinations the entire amount of their fees.

Dr. LAVELL was in favour of leaving the matter over till the report was received from the Executive Committee. If there was an Executive Committee appointed it should be

representative so far as the Schools were concerned. He thought they could well do without a Committee of this kind entirely, if they only performed their work well and carefully in Council. Personally he wished to say that he would never be willing to work on an Executive without reasonable remuneration.

After some further discussion, Dr. Geikie was allowed to withdraw his motion, leaving it as a notice of motion to come up for consideration at a future day.

MATRICULATION EXAMINATIONS.

Pursuant to the notice of motion given in the afternoon, Dr. BURNS moved, "That on and after July 1st, 1881, in lieu of the matriculation examination heretofore in force, the Council accept the Provincial Intermediate High School examination, with Latin included, as a compulsory subject, and that upon presentation of the official certificate of having passed the said examination to the Registrar and the payment of fees the holder of the same shall be entitled to register as a medical student." To his mind the proposed change would have many advantages, not the least of which was that it would be economical to the Council in saving the sums now paid to the students who pass their matriculation examination. It would be economical to the students, inasmuch as they could pass the examination in their own High Schools, or wherever they received their education. It was uniform throughout the whole Province. The Central Board of Examiners held its meetings in Toronto, and at a certain fixed time of the year, so that there would be no difficulty in that respect. It was perfectly secret, consequently perfectly free from the charge of favouritism. It was also an elevation of the standard, as a comparison with the examination at present would show, and it had the effect of grafting the system of elementary medical education upon the Government system. By accepting the High School standard it would prove a mutual assistance, and it was but reasonable to expect that if the Council endorsed the Government in this matter they would be benefitted in return. No one would deny that they had a perfect right to receive assistance from the Government, and they would have a better claim to it if they endorsed the Government standard of teaching. It was a great advantage to a medical man to have an elementary college training, in fitting himself for his profession. The proposed Intermediate examination had been adopted or partially adopted, he thought, by Queen's College and Victoria University. There was no doubt about it lessening the labours of the Council. It might be objected to if it opened the doors to the study of medicine to a very

much larger number than it was proper to encourage to study for the profession, but such an excuse would not have any real effect in the actual working of the system.

Dr. MACDONALD, in seconding the motion, believed the examination proposed would be a superior one to that now in practice. He thought it would make the approach to the profession, if anything, a little more difficult. He was told by High School teachers that the Government intermediate examination was a higher standard than that required for the College of Physicians and Surgeons. He moved that the subject be referred to the Education Committee. Carried.

DIPLOMAS FROM OTHER COLLEGES.

Dr. MACDONALD moved:—"That the diploma or certificate in Arts of McGill College, Montreal, and Bishop's College, Lennoxville, be accepted as a certificate of registration as a student of medicine by this College, on the payment by the possessor of the certificate of registration of the registration or matriculation fee imposed by the College." It was sought by the resolution to enable young men who matriculated in these colleges to pass also at Toronto. On motion the resolution was referred to the Educational Committee.

NOTICES OF MOTION.

Notice was given of the following motions:—
By Dr. McGargow—That not less than one-half fees be refunded to those students who failed or who may fail passing the examinations.

Also—That the time for the passing of the final examination before the Board of Examiners appointed by the College be fixed for the first Tuesday in April for the next five years.

The Council then adjourned, to resume next morning at 10 o'clock.

SECOND DAY.

The Medical Council resumed yesterday morning at eleven o'clock, the Vice-President, Dr. Bergin, in the chair.

The minutes of the previous meeting were confirmed.

PETITIONS.

A large number of petitions were presented by the members, having reference to the recent examinations, changes of curriculum, and other matters, and on motion they were received and referred to their several committees.

MOTIONS.

Pursuant to notice, Dr. McCargow moved that one-half of the fees be returned to students who have failed, or who may fail, to

pass the examination of the College, then to pay full fees on their application for re-examination.

A resolution to this effect had recently been passed by the County of Brant Medical Association, and he thought it was a great hardship that young men, most of them in poor circumstances, should be required to forfeit the full amount of the fee if unsuccessful.

Dr. MACDONALD, while seconding the motion, felt that they should be careful not to be too lenient to students who did not succeed in passing. They should be given to understand that they entered with full knowledge that the result of their rejection would be the forfeit of their fees.

Dr. GEIKIE moved in amendment that three-fourths of the fees be returned to the students.

Dr. BURNS moved in amendment to the amendment that two-thirds of the fees be returned instead of one-half.

Dr. LAVELL favored a remission of one-half fees at the first rejection by giving the student the privilege of coming up for examination the second time without paying an extra fee. In subsequent examinations, if the student did not succeed on the first two occasions, he would exact the full fee. It would have the effect of spurring young men to study up and try to pass. He had known men to go up for three or four years in succession and failing in their practical work.

On motion of Dr. WRIGHT, the resolution, with amendments, was referred to the Committee on Finance.

FINAL EXAMINATIONS.

Dr. McCARGOW moved "That the time for the final examination of students be fixed for the first Tuesday in April in each year for the next five years, and that a general notice be inserted in each of the medical and surgical journals, and in the daily papers of Toronto, Hamilton, London, and Kingston."

Dr. CLARK pointed out that the Council had no power to pass a resolution extending over the year of their existence. The Council of next year might rescind any such legislation.

At the suggestion of the Chairman, the mover withdrew his motion, and gave notice that he would introduce a by-law bearing on the subject at the next sitting of the Council.

REPORTING PROCEEDINGS.

Dr. GEIKIE moved that the Registrar be instructed to furnish a full digest of proceedings of the Executive Committee to the medical journals. He offered the resolution in order to meet a very reasonable demand on the part of the profession in this country.

Dr. WRIGHT moved in amendment that the minutes of the Council should be open to any medical journal for inspection, copying and publication. The amendment was carried.

EXECUTIVE COMMITTEE.

Dr. GEIKIE moved that the Executive Committee for the ensuing year compose the following members:—The President and Vice-President *ex officio*; Drs. Wright, Lavell, Bray, Burns, Husband, Edward, Burritt, and the mover. He was in favour of having a large Executive Committee, and he thought the profession generally demanded it. He had heard the universal opinion expressed throughout the country that the Executive being the Council to all intents and purposes through the entire year, should be a large and representative body.

Dr. CLARK's objection to a large Executive was that it was no more efficient than a small one, while it was a great deal more expensive. If any one would take the trouble to examine the expense account for the last six or seven years he would find that the Committee cost from \$200 to \$700 per annum. The total expenses of the Council footed up to from three to four thousand dollars a year. He was in favour of leaving the routine business of the Committee to the President and Vice-President, and when the credentials came up for examination he would simply have a representative from each of the Medical Schools present on the Board. It would be far better for the Council to meet again in the fall than to have an Executive Committee appointed in the way proposed.

At the suggestion of the CHAIR the motion was allowed to stand, pending the report from the Committee on Dr. Clark's resolution.

CONTESTED ELECTIONS.

The report of the Committee appointed to examine the credentials of members was presented by Dr. Bray and considered in Committee of the Whole. The following representatives were declared elected from the different territorial divisions:—

Western and St. Clair Division—Dr. Bray.
Gore and St. Thomas Division—Dr. Williams.
Saugeen and Brock Division—Dr. Douglas.
Malahide and Tecumseh Division—Dr. Edwards.
Erie and Niagara Division—Dr. McCargow.
Burlington and Home Division—Dr. Macdonald.
King's and Queen's Division—Dr. Allison.
Midland and York Division—Dr. Burns.
Quinte and Cataraqui Division—Dr. Irwin.
Newcastle and Trent Division—Dr. Burritt.
Bathurst and Rideau Division—Dr. Mostyn.
St. Lawrence and Eastern Division—Dr. Bergin.
Homœopathic Representatives—Drs. Logan, Henderson, Morden, Husband and Vernon.

APPOINTED MEMBERS.

Ottawa University—Dr. Grant.
 Victoria University—Dr. Brouse.
 Queen's University—Dr. McCommmon.
 Trinity College—Dr. Spragge.
 University College—Dr. Ellis.
 Toronto Medical School—Dr. Wright.
 Trinity Medical School—Dr. Geikie.
 Royal College of P. and S.—Dr. Lavell.
 Albert College—Dr. Clark.
 Regiopolis College—Dr. Phelan.

In only two cases were protests entered. The first was that of Dr. Freeman against the return of Dr. Macdonald for the Burlington and Home Division, on the ground that the returning-officer refused to allow himself or agent to be present at the counting of the voting papers. The Committee could find no by-laws saying whether the counting of the ballots should be secret or not, and they returned Dr. Macdonald elected. The second protest was that of Dr. Day against the return of Dr. Irwin, on the ground that the latter was only elected by the casting vote of the returning-officer, and as several of the votes cast in his favour were bad a recount was demanded. On the recount the vote stood Dr. Day 36, Dr. Irwin 40, and the election of the latter was sustained.

In reply to a question, Dr. BRAY said that on the second protest a number of votes were cast out by the Committee because the voters did not reside in the division where the ballots were cast.

Dr. CLARK thought it would be better not to adopt the report until legal advice were obtained as to the question of residency, and until it was found out whether or not these votes were bad, as had been decided by the Committee. It was possible that a lawsuit might result from this election, and it would be well not to proceed too hastily.

Dr. BERGIN was of opinion that if a voter changed his place of residence he was not disfranchised in the division which he had left until, as specified by the Act, he had notified the Registrar of his change of residence. The only guide for the returning-officer was the voters' lists, and they were not expected to perform the functions of a judge in the matter.

Dr. WRIGHT moved that the report be referred back to the Committee, with instructions to regard the residence of a registered practitioner of medicine as the place where the voter resides at the time of the election.

After some discussion on the resolution, the Committee rose and reported progress.

The Council adjourned at one o'clock.

AFTERNOON SITTING.

The Council re-assembled at three o'clock, the President, Dr. Allison, in the chair.

After routine business a number of petitions

and communications were received and referred to their committees.

THE STOWE CASE.

The late President, Dr. Macdonald, stated that a writ of *mandamus* had been served upon the Registrar to compel him to accept the registration of Mrs. Emily H. Stowe. The complainant set forth that she had been practising since 1850. A communication had been received from her solicitor, Mr. Meek, and in reply he had been referred to the Registrar, who had the right, under the statute, to decide whether Mrs. Stowe's claim was valid or not. The matter was referred to the Registration Committee.

THE ANNUAL COMMITTEE.

Dr. MACDONALD introduced a by-law fixing the time for holding the Annual Meeting of the Council on the second Tuesday in June in each year. The by-law was passed through the different stages and declared carried.

EXAMINATIONS.

Dr. McCARGOW introduced a by-law in reference to the time for holding the professional examinations, and the manner in which they shall be conducted. The by-law received its first and second reading, was adopted in Committee of the Whole, and declared carried.

PUBLIC HEALTH.

Dr. GRANT offered the following resolutions:—

"1. That the members of this Council are of opinion that there is no subject of greater importance to the well-being and prosperity of the Dominion than that of public hygiene.

"2. That in order to keep pace with the scientific progress of the age, and give greater evidence of an earnest desire to promote sanitary measures, this Council is of opinion that a Central Bureau of Health should be established at the Capital, under the control of the Federal Government.

"3. That as a Central Bureau of Health meets with the unanimous voice of our profession in Canada, it deserves the well-timed consideration of the Federal Government.

"4. It having recently transpired that a grand Congress of Hygiene will assemble in September next at Turin, and an invitation having been extended to all Governments to send a representative, that Sir Charles Tupper, at present in England, be requested, on the part of our profession, to attend that meeting, and thus give evidence of our desire to promote the advocacy of the best possible means to lessen mortality and guard public health."

The mover considered that the subject of public health was one of great interest to the

profession and the public throughout the Dominion, and he had prepared resolutions with a view of impressing upon the Government the importance of adopting some legislation in reference to it.

Dr. Brouse said the subject had engaged the attention of other Governments, as France, Germany, England, and the United States. In the latter country, at a recent meeting, the Federal Government was called upon to legislate on this subject. A Bureau of Sanitary Science had been established at Washington, and quite a sum of money had been devoted to the purpose of carrying out its object. Medical men were not satisfied with having a Bureau, but they demanded that there should be a Department of Health, as in Germany, England, and other countries. In England since 1844 no less than 48 public health Bills have been passed in Parliament, and it was shown by the returns that through the establishment of hygienic laws the death rate in London alone had been reduced from 42 to 21. He thought the Ontario Government also should take steps to legislate on this question. It was the greatest question of the age, and its importance would be urged with greater force upon the attention of legislative bodies in the future.

The CHAIRMAN concurred in the views expressed, and the resolutions were carried unanimously.

SECURITY OF TREASURER.

On motion of Dr. CLARK, seconded by Dr. MACDONALD, it was resolved, "That in future the Treasurer of the Council shall be required to give security for \$2,000, and two additional sureties in \$1,000 each."

TREASURER'S REPORT.

The report of the Treasurer for the past year was then presented. It read as follows:—

INCOME.

Balance in Bank.....	\$3,658 76
Assessment dues and fines	1,724 14
Matriculation fees.....	1,470 00
Fees from professional examinations.....	3,180 00
Bank accommodation	1,667 77
Interest on current account.....	51 62
	<hr/>
	\$11,752 29

EXPENDITURE.

Remuneration of members at last meeting.	\$1,105 62
Accounts	3,212 79
Officers' salaries.....	1,000 00
Paid on building	2,194 00
Maturing Notes.....	1,700 00
Matriculation expenses.....	379 11
Examiners' expenses.....	1,100 95
Fees received from prosecutor	366 14
Miscellaneous	347 15
Balance in bank	345 53
	<hr/>
	\$11,752 29

The report stated that the aggregate amount of accounts to be presented by the Registrar for payment would be in the neighbourhood of \$4,000, including the remuneration to members for attendance at the present session, against which there was only a balance of \$345 53. The amount yet due on the property is \$2,600, payable in two equal annual instalments.

On motion, the report was referred to the Committee on Finance.

CREDENTIALS.

The Council resolved itself into Committee of the Whole, to resume the consideration of the report of the Committee on Credentials, Dr. Macdonald in the chair. Dr. Wright's resolution was read, referring the report back to the Committee with certain instructions.

Dr. BERGIN moved in amendment that the report be not referred back, but that it be adopted. The amendment was declared carried.

On the motion to rise and report progress, Dr. Wright offered an amendment in the substance of his former resolution. The amendment was lost on the following division:—Yeas—Drs. Burritt, Clark, Douglas, Geikie, Mostyn, Williams, Wright—7. Nays—Drs. Bergin, Bray, Brouse, Burns, Edwards, Grant, Henderson, Husband, Irwin, Lavell, Logan, Macdonald, Morden, McCammon, McCargow, Spragge, and Vernon—17.

The motion to report was adopted on the same division.

INVITATION.

A communication was read from Dr. O'Reilly, Superintendent of the Toronto Hospital, inviting the Council to visit the Institution during their stay in the city. It was resolved to accept the invitation, and the time was fixed for next day at half-past twelve.

THIRD DAY.

The Council met at half-past ten, the President, Dr. Allison, in the chair. The minutes of the previous meeting were confirmed.

ADOPTION OF TARIFF.

Dr. BURRITT moved, seconded by Dr. WILLIAMS, "That the tariff adopted by the Newcastle and Trent Medical Association be sanctioned by Council and receive the corporate seal."

Dr. BROUSE thought the tariff should be referred to a committee and reported to the Council afterwards.

Dr. MACDONALD objected to the tariff being adopted before being read.

Dr. BROUSE moved in amendment to the resolution, that the tariff be submitted to a

Committee of three, to be named by the President. Carried.

The PRESIDENT named Drs. Vernon, Brouse, and Macdonald, by whom the tariff question shall be considered.

Dr. MACDONALD moved, seconded by Dr. BERGIN, "That it be an instruction to the Registrar to permit none of the numbers by which students under examination are distinguished to be divulged." The mover said that in some cases students who had not been successful in passing had reason to feel that some others had advantages over them. It had been the habit of some examiners to ask the Registrar the numbers of certain students. No one should be allowed to look at the register containing those numbers.

The motion was carried.

Dr. MACDONALD moved, seconded by Dr. McCAMMON, "That it be an instruction to the Education Committee to consider the propriety of examining on certain subjects in the final course orally as well as written, instead of by written examinations as at present, and that the final return of the examiners should be made within two weeks."

On motion of Dr. GEIKIE, the resolution was referred to the Education Committee.

RULES AND REGULATIONS.

The report of the Committee on Rules and Regulations was presented, recommending the appointment of a Special Committee of the Council for the purpose of framing a new set of rules for future guidance. The report was adopted in Committee of the Whole, and a Committee was appointed consisting of Drs. Wright, Clark, and Burns.

The Council adjourned at twelve o'clock, to give the members an opportunity of visiting the Hospital.

AFTERNOON SITTING.

The Council re-assembled at 3 p.m., the President in the chair.

A letter was read from John McCrimmon, Kincardine, enclosing a letter from the Registrar of the Council of Medical Registration of Edinburgh, Scotland, stating that he was duly registered in conformity with the Act of 1858. The writer applied for registration in the Ontario College. The matter was referred to the Registration Committee.

EXECUTIVE COMMITTEE.

Dr. BRAY moved, seconded by Dr. GEIKIE, "That the Executive Committee of the Council for the ensuing year consist of the following gentlemen:—The President and Vice-President, Drs. Lavell, Wright, Geikie, Burns, Burritt, Edwards, Mostyn, Husband, and the mover and

seconder." The mover thought the Committee proposed by him was one that would fully represent the feelings of the profession generally, and the schools. Throughout the territorial divisions in the country there had been great complaint about the smallness of the Executive Committee, and he proposed to obviate the difficulty by making it larger.

Dr. CLARK moved in amendment, seconded by Dr. LOGAN, "That the following be the Executive Committee: the President and Vice-President *ex officio*, Drs. Burns, Macdonald, Edwards, and Husband." He proposed a small Committee on the score of economy. The East and West were represented by two members each, and the city of Toronto had one. He found by calculation that at each meeting of a Committee of the size proposed by his resolution a saving would be effected of \$67, and he would ask if a large Committee was going to be worth what it cost to the Council.

Dr. GEIKIE said that Dr. Clark's calculations were fallacious and misleading. With a Committee such as was proposed in the resolution, a much greater saving would be effected in the prevention of lawsuits and other things. With a little better management they might have been saved from having to report some \$300 in the treasury while owing about \$4,000. He wanted the Council to stand well with the profession, and he knew absolutely that the profession demanded a large and a representative Committee. He was certain that the *personnel* of Dr. Bray's Committee would be acceptable to the profession.

Dr. CLARK said that before the lawsuits spoken of were entered upon last year, Dr. Geikie was sent for and consulted in reference to them, and he agreed to the proceedings being taken.

Dr. GRANT said there was a general feeling in the country that the territorial men had not sufficient representation. He was satisfied that the appointment of territorial representatives, as nominated by Dr. Clark, would give very great pleasure to the medical men generally throughout the Province.

Dr. MACDONALD said that Dr. Geikie had insinuated that the Committee which he supported was, by contrast with previous Committees of the Executive, more anxious to conserve the funds of the College and to refrain from extravagance. He knew that in the past they had been excessively anxious to save expense, and they did not venture to enter upon these expensive lawsuits without consulting Drs. Geikie and Aikins, and they came and ratified what was done, and assured them of the support of themselves and their schools.

Dr. CLARK—And they were paid for coming too.

Dr. GEIKIE denied that he advocated going

to law. He refrained from expressing an opinion either way.

Dr. MACDONALD said that it was an evidence of the propriety of the course adopted by the Committee that when the question was brought before the Courts the Council was not put in for the costs. He repeated that the profession was told from Toronto that such and such was the case, and they believed.

Dr. GEIKIE—Whom were they told by?

Dr. MACDONALD did not know by whom, but he knew they were told. If there was a small Committee last year, and a special reason for it, he maintained that they were worthy of commendation instead of the reproach that had been showered upon them from some quarters. He did not believe the profession was so much exercised upon that topic as had been stated.

A vote was then taken, and the amendment of Dr. Clark was carried.

APPOINTMENT OF TREASURER.

Dr. GRANT moved "That Dr. Aikins be re-appointed Treasurer of the Council." Dr. Aikins had been treasurer for about fourteen years, and from the admirable manner in which he had always kept the accounts it was their duty to elect him.

Dr. BERGIN seconded the nomination.

Dr. BRAY moved, and Dr. BURRITT seconded, "That Dr. Burns be appointed Treasurer."

Dr. McCAMMON would support Dr. Aikins. There had been no charge brought against his management of the finances, and he did not see any necessity for a change. It looked as if the territorial men were determined to carry everything from the school men in making appointments.

Dr. BROUSE said that when Dr. Aikins was first appointed he took the position without emolument, and on more than one occasion he had advanced funds in order to keep the Council afloat. As he had not resigned, it would be better to re-appoint him. Dr. Burns had already been honoured by the Council in being placed on the Executive Committee. Dr. Aikins was a man of strength and power and of great assistance, and it would be to the interest of the College to have him identified with its interests.

Dr. GEIKIE did not think that Dr. Aikins' management of the finances could be found fault with. Still he thought it was wrong to appoint a school man to the position of treasurer permanently on account of the influence he might exercise in favour of his particular school on the students who came to him to pay their fees. It was for that reason, and for that alone, that he thought it better to appoint an outside man.

Dr. BURRITT would favour the election of a

treasurer to whom they could not impute any motive for advancing the interests of any school represented by him.

Dr. CLARK supported Dr. Aikins' re-appointment. If it were found that Dr. Aikins had used his position for the aggrandizement of his school, he would be the first to have him removed. He knew that during the past year, out of about 400 students who came to the Treasurer to pay their fees, he had only received money in person from one individual.

Dr. LAVELL thought that Dr. Aikins had husbanded the resources of the Council, and had faithfully discharged his duties as Treasurer. He claimed for school men that they had an equal right with territorial representatives to any position which might be in the gift of the Council, and he confessed that they had perhaps received their full share of office in the Council. The school men were foremost in securing the legislation, in 1866, which placed the College in the independent position in which they now found themselves. When a treasurer had performed his duty faithfully and well, it was hard to throw him overboard in the manner proposed.

Dr. McCARGOW paid a high compliment to the manner in which the accounts were presented to the Finance Committee. He felt bound, however, in deference to his constituents, to vote for an outside man.

Dr. BERGIN said the question was not one of representation, but simply whether the Treasurer had been an efficient officer and had done his duty by the Council, and whether or not his conduct in the past was a guarantee that he would do his duty in the future. He did not think they should do an injustice to a faithful servant by listening to the many complaints and reports that had come to their ears. The history of all financial concerns showed that they did not change their treasurer very often, and at the present time, having regard to the state of their finances, he did not think it would be wise to "swap horses while crossing a stream." They should not at present deprive themselves of the benefit of the advice which Dr. Aikins had proved himself capable of giving in College matters.

Dr. Grant's motion was then put and carried on the following division:—Yeas—Drs. Bergin, Brouse, Clark, Grant, Henderson, Husband, Lavell, Macdonald, Morden, Mostyn, McCammon, Vernon, and Wright—13. Nays—Drs. Bray, Burritt, Douglas, Edwards, Geikie, Logan, McCargow, and Williams—8.

APPOINTMENT OF REGISTRAR.

Dr. BERGIN moved "That Dr. Robert A. Pyne, son of the retiring Registrar, be appointed to the position." Carried.

CONTESTED SEAT.

The President read a communication from a firm of City Solicitors on behalf of Dr. Day, who was defeated by Dr. Irwin in the recent election for the Quinte and Cataraqui division. The Council were advised that unless they saw fit before the close of the present session to rescind the illegal decision arrived at, sustaining Dr. Irwin in his seat, an injunction would be filed in the Court of Chancery to obtain for Dr. Day recognition of his legal rights.

Dr. CLARK said that in adopting the report of the Committee on Credentials, they had declared in Council that Dr. Irwin was the proper representative, and they would have to fight it out in the Court of Chancery.

Dr. BROUSE proposed that they send a reply to the communication, stating that the question had been before the Council and judgment had been passed upon it, and that from the evidence presented to them they considered that Dr. Irwin was entitled to the seat.

Dr. BERGIN thought the Council was only acting as an arbiter between the parties, and if Dr. Day wished to contest the seat he should file a bill against Dr. Irwin and not against the Council. He looked upon it as if the letter was sent to them with a view of intimidating them, and he would not yield to threats of this kind.

After some further discussion the subject was laid over till a subsequent sitting.

CHANGES IN EXAMINATION.

Dr. GRANT moved, seconded by Dr. MOSTYN, "That inasmuch as it has become known to the members of this Council that at present there are several members of the medical profession in good standing, who from active professional duties during a period of not less than five years have been unable to undergo the usual theoretical part of the examinations and register in the Province, that any such, on the requisition of at least five or more registered and co-associated practitioners of the county in which such applicant resides, shall have a practical examination at the next annual meeting of the Council, in order that after having given ample evidence of the required qualification any such may be enabled to avail themselves of the privileges of this Council." The mover had had an application from two practitioners in the lower part of the Province who, on account of active duties, were in the position described in the resolution. He had placed a rider in the resolution requiring that an applicant must obtain the signatures of five of his brethren to his requisition.

The motion was referred to the Educational Committee.

TERM OF THE COUNCIL.

Dr. BRAY moved, seconded by Dr. BURNS, "That in the opinion of this Council the Legislature should be approached on the first favourable opportunity with a view of having the Medical Act so amended as to shorten the duration of the term for which each Council is elected, making such term three instead of five years, in deference to the widely expressed wish of the profession." A great many medical men throughout the Province were of opinion that the term of five years was too long, and he had been requested to bring the motion before the Council.

The motion was lost on a division.

EXAMINERS.

Dr. BURNS moved, seconded by Dr. BRAY, "That hereafter no examiners should be appointed from the Medical Council." Lost.

ASSESSMENT ARREARAGES.

Dr. WRIGHT moved, seconded by Dr. BERGIN, "That a circular be issued and sent to every member of the College by the Registrar so soon after the close of the present session of the Council as conveniently may be, setting forth fully the present financial condition of the Council, showing the amount of arrearages of assessment and the necessity for immediate payment of these arrearages. Also calling the attention of members of the College to the necessity of notifying the Registrar of every change of residence by a member of the Council, and also to that clause of the Imperial Act under which registered practitioners under that Act can demand registration by this Council." Carried.

The Council adjourned at six o'clock.

EVENING SESSION.

The Council met again at eight o'clock, the Vice-President, Dr. Bergin, in the chair.

Dr. BURNS wished to say, in reference to his recent candidature for the position of Treasurer, that he consented in deference to the expressed wish of a majority of the territorial representatives, who felt that a school man should not hold the position. Personally, he had no objection to the present incumbent of the position; he had no desire for the office; but he could not resist the application, especially as there was no other eligible territorial representative resident in the city.

The Committee appointed to consider the tariff of the Newcastle and Trent Medical Association recommended the reception of the same, and it was passed in Committee of the Whole and adopted forthwith.

FINANCE COMMITTEE.

The report of the Finance Committee was presented by the Chairman, Dr. Mostyn. It recommended the payment of accounts amounting in all to \$3,065 14. The expenses of the Executive Committee for the year were \$462, and the item of law expenses amounted to \$447 22. In reference to Dr. McCargow's motion for a remission of fees to unsuccessful students at examinations, the Committee recommended that one-half of the fees should be returned to all future candidates who failed to pass.

Dr. GEIKIE moved in amendment, "That in cases where parties had been once or oftener unsuccessful, and had received no rebate, no further fees should be charged when they presented themselves for one future examination."

Dr. McCAMMON moved in amendment that the whole fee should be paid at the time of presentation of the candidate, but that in case of failure he would be allowed to present himself once more without any further charge.

The amendment was carried, and the report was adopted as amended.

FOURTH DAY.

The fourth and last day's sittings of the Council was opened in the afternoon at 3:30. The chair was taken by the President.

PETITIONS.

Dr. McCARGOW presented a petition from E. B. Riley, of Hamilton, setting forth that he had attended for one year at the Hospital, and subsequently at the office of a regular physician for one year, and praying that he be admitted to final examination after having attended lectures for three years. On motion, the prayer of the petition was granted.

COMMUNICATIONS.

Dr. MACDONALD read a communication from the Under Secretary of State in reference to the steps which are being taken in the matter of the proposed change in the Imperial Medical Act. The letter stated that correspondence was going on between the Dominion and the Imperial Governments on the subject.

A communication was read from the Treasurer, calling attention to the fact that in 1879 Dr. Kennedy had received \$25 in excess of the amount to which he was entitled for his services as an examiner. The letter was referred to the Executive Committee, with instructions to collect the amount.

A communication was read from Dr. Day, asking the Council to furnish him with a list of votes struck off which were polled in his favour at the recent medical territorial election

held in the Quinte and Cataraqui division, and to state the reasons why each vote was struck off.

Dr. BERGIN thought it was a very modest demand from Dr. Day to ask for information wherewith to prosecute the Council. He moved that the letter be laid on the table.

The motion was carried.

EMPLOYMENT OF COUNSEL.

Dr. McCAMMON moved, seconded by Dr. BERGIN "That Mr. Dalton McCarthy, Q.C., be appointed solicitor for the Council." He was not personally acquainted with Mr. McCarthy, but his reputation as a lawyer was good.

Dr. CLARK did not see any necessity for changing the counsel. The firm of which Hon. Mr. Crooks was a member had been the solicitors of the Council for years, with good satisfaction. Besides, this connection might be very desirable to the Council if they wished to bring any matters before the Ontario Legislature.

Dr. BERGIN thought if they needed assistance in Parliament, the sooner they threw their solicitor overboard the better.

Dr. MACDONALD said that Mr. Crooks was selected as their solicitor by a member of the Council who was politically opposed to him. He moved in amendment "That the firm of Crooks, Kingsmill, & Cattanach be retained as counsel."

The original motion was put first, and carried on a division of 12 to 6.

Dr. DOUGLAS moved, and Dr. BRAY seconded, "That in order to give more general satisfaction throughout the different territorial districts, deputy returning-officers be appointed in each subdivision." The motion was referred to the Executive Committee.

BUREAU OF HEALTH.

Dr. CLARK proposed the following resolution:—"That in the opinion of this Council, while it is very desirable that a Central Bureau of Health for this Dominion should be established at Ottawa, the Provincial Government of Ontario should make some provision at an early day for promoting the public health in this Province by providing for some central organized body, such as the Government may deem best, with functions similar to the Imperial Boards of Health of most European countries, and the State Boards of Health of most of the United States, chiefly for the purpose of educating the people in health matters, obtaining information in reference to the public health, and for perfecting, as far as possible, the returns of vital statistics." Carried.

INCREASED REPRESENTATION.

Dr. GEIKIE moved, seconded by Dr. MOSTYN,

"That in the opinion of this Council a very considerable increase in the number of territorial representatives will greatly conduce to its popularity, and to securing, as its due, the fullest sympathy and confidence of the profession and the public." The mover offered the resolution entirely in the interest of the profession, and without any private motive to serve.

Dr. LAVELL was not opposed to an increase of representation, but from the varied interests represented in the Council any proposed change in the representation would have to be well considered. There was an inequality, and he was willing to rectify it as squarely as could be done. He would be glad if they could go to the Legislature and ask for a change, but they would need to be united and go as one body, or the Government would send them back to reconcile their views and present a united measure.

Dr. BERGIN said that it was not in the interest of Dr. Geikie that there should be an increase in the territorial representation, and he was merely throwing a sop to them. He was tickling them with a straw, and he had abandoned his allegiance to the schools.

Dr. GEIKIE called attention to his statement that he had no personal interest in supporting the resolution.

Dr. BERGIN accepted the statement. He thought the present time was inopportune for a change in representation. If they approached the Legislature in the present state of feeling they would be almost sure to meet with failure.

Dr. LOGAN said there were three or four teaching bodies having representatives in the Council, who had no more right to a seat than the chairman of a respectable literary institution. They were mere figure-heads, discussing medical subjects in which they had not the slightest interest in the world.

Dr. CLARK, as one of the nondescripts alluded to, did not think that any one on the Council should say to them whether they had a right to be there or not. Their presence there was not improper until they were forbidden by the Act. If it was intended to abolish the present order of things and seek for new legislation, he would favour representation by population.

Dr. BRAY moved in amendment, seconded by Dr. LOGAN:—"That it is expedient, in view of the increasing number of teaching bodies in the Province who send members to the Council, that a change in the Act should be made, and that a Committee be appointed whose duty it shall be to thoroughly inquire into this matter and report at the next meeting of the Council, with a view of making a change in section 6 of the Medical Act."

The amendment was put and carried on a vote by 11 to 8.

REPORTS OF COMMITTEES.

Dr. Mostyn presented the second report of the Committee on Finance. Amongst other things it was stated that the amount of assessments collected was \$200 in excess of former years. The report was adopted without amendment.

REGISTRATION.

Dr. Vernon presented the report of the Committee on Registration. A number of disputed cases came before the Committee for consideration, and were reported on. The applications of Dr. Thrall and Miss Griss were not favourably received; those of Mrs. Stowe, Jas. H. Lister, and — Perris were recommended for adoption. The report was passed in Committee of the Whole, with one amendment—deferring the case of J. H. Lister for future consideration.

EDUCATION.

The report of the Committee on Education was read by Dr. Lavell. A great variety of matters coming up for the consideration of the Committee were reported on. The College Calendar was revised, and a number of changes were made in the regulations, courses of study, &c.

The resolution of Dr. Burns, raising the matriculation examination to conform to the High School intermediate examinations, was recommended for adoption. The following examiners were appointed:—Anatomy—Dr. Sullivan. Medicine—Dr. Eccles. Midwifery—Dr. Robertson. Physiology, &c.—Dr. Tye. Surgery—Dr. Buckley. Chemistry—Dr. Barrett. Materia Medica and Botany—Dr. Stevenson. Jurisprudence—Dr. Campbell. Homœopathic Examiner—Dr. Hall. Matriculation Examiners—Messrs. McMurphy and Knight. The report was adopted.

INCREASED REMUNERATION.

Dr. McCargow introduced a by-law giving to members of the Council when engaged in attending the meeting \$10 per day and travelling expenses instead of \$8 as at present. After some discussion the bill was passed on a division by 13 to 5.

VOTE OF THANKS.

A cordial vote of thanks was passed to the late Registrar, Dr. Pyne, for the zeal and efficiency displayed in the discharge of his duties for the past seven years. The thanks of the Council were also tendered to Dr. O'Reilly for his invitation to visit the Hospital; and to the President and Vice-President of the Council.

The Council then adjourned.

CANADA MEDICAL ASSOCIATION.

The 13th annual meeting of the Canada Medical Association will be held in Ottawa, on Wednesday, September 1st. We hope there will be a large attendance. The Committee of Arrangements will be glad to receive notice at least ten days before the meeting from any one who proposes to read a paper.

Arrangements will be made with the different Railroad and Steamboat Companies for the usual reduction in the fare of members, certificates for which may be obtained from the Local Secretaries, Drs. Wright, Ottawa; Ross, Montreal; Wickwire, Halifax, N.S.; Allison, St. John, N.B.; and from A. H. David, M.D., General Secretary, Canada Medical Association.

PREPARATIONS OF A CANADIAN PHARMACIST.

—It is almost needless to mention the name of Mr. E. B. Shuttleworth to our readers under the above caption, as he has been so long and so well known throughout Canada and the United States as the editor of the *Pharmaceutical Journal* and the manager of the Toronto Chemical Works. He has established a manufactory at 53 Front Street, Toronto. His advertisement appears on page 12.

APPOINTMENTS.

Dr. Charles Sheard has been appointed a Pathologist to the Toronto General Hospital.

Dr. U. Ogden has been appointed representative of the Toronto School of Medicine in the Senate of Toronto University.

Dr. H. H. Wright has been appointed representative of the Toronto School of Medicine in the Ontario Medical Council.

Dr. A. H. Wright, Toronto, has been appointed Associate Lecturer on Physiology at the Toronto School of Medicine.

ACCOUCHEMENTS EXTRAORDINARY.—We hear from Walkerton of a lady who has recently presented her husband, to whom she has been married for twenty-one years, with his first-born child—a young son. In this city, also, the wife of a well-known citizen has just been delivered of her first-born, after having been married fifteen years to her first husband, and four years to her present husband.

Book Notices.

Optico-Ciliary Neurotomy. By JULIAN CHIS-OLM, M.D., Baltimore.

The Diagnosis of Granular Kidney. By ROBERT SAUNBY, M.D., M.R.C.P., Lond.

Transactions of the Medical Society of the State of Tennessee at its Fourth Annual Meeting, 1880.

The Detroit Medical College, Detroit, Michigan, Thirteenth Annual Announcement and Catalogue 1880-81.

Wine in the different forms of Anæmia and Atonic Gout. By M. E. BÉGIN. Translated from the French.

Eleventh Report of the State Board of Health of Massachusetts, for the six months ending June 30th, 1879. Boston: Band, Avery & Co.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland; 82nd Annual Session. Baltimore, April, 1880.

University of Bishop's College; 10th Annual Announcement of the Faculty of Medicine. Montreal, Session 1880-81.

Annual Announcement of the St. Paul Medical College—Medical Department of Hamline University of Minnesota.

A Text-Book on Physiology. By M. FOSTER, M.A., M.D., F.R.S., etc. From the Third English Edition. With notes and additions by Edward T. Reichart, of Philadelphia. Philadelphia: Henry C. Lea's Sons & Co.; Toronto: Willing & Williamson.

We had the pleasure of expressing a very favourable opinion of the English edition of Foster's Physiology in our issue of February last. In this American edition, the editor, while making no changes in the context, has added many details, especially in Physiological Anatomy. Although, in any case, the work is only suitable for an advanced student, who is supposed to have a knowledge of Histology; yet we think the additions have made the book more complete, and will increase the usefulness of a most valuable work.

A Treatise on Foreign Bodies in Surgical Practice. By Dr. A. POULET, Adjutant Surgeon-Major, Inspector of the School for Military Medicine at Val-de-Grace, France. New York: William Wood & Company; Toronto: Willing & Williamson.

The two volumes now before us on the above subject are exceedingly well written. It needs only a moment's consideration of any practitioner to recall to memory many instances of surgical cases which at first puzzled him as to the exciting causes, when after careful examination and watching they were found to consist of foreign bodies, whose presence were a continuous source of local irritation. The surgeon is often mortified to find that after treating symptoms for some time, and waiting for further developments, the source of all the trouble and anxiety may be a small stone or pea in the ear, a piece of metal in the cornea, or a small piece of catheter in the bladder. The author justly says:—"The anxiety and embarrassment which a surgeon manifests will show how insufficient is his surgical knowledge on this point. He may be taught to amputate, resect, or disarticulate the limb *secundum artem*; he may know the principal arterial trunks, and all the exceptional occurrences; but there is every reason to believe that he will be a very novice in such cases as may be suddenly presented to him, both in the city and country."

All foreign bodies are ranged in four grand classes, according to their origin, their mode of penetration, or fixity. These are classified as follows:—

I. The bodies which penetrate the economy through the natural passages.

II. Those which penetrate by "breaking through," *i.e.*, by wounding some part of the cutaneous envelope.

III. Those which, enveloping in the economy after an injury, are formed at the spot where they are found.

IV. Those which are adherent to parts, like rings, chains, etc.

It will thus be seen what a large part of surgery this monograph covers. In the usual text-books these subjects are usually dispensed with in a few sentences, although in actual

practice such cases are far oftener found than are those of apparently greater importance and often need manipulation and dexterity not even required in major operations.

The chapters treating of foreign bodies in the intestinal canal, the respiratory bodies, and the genito-urinary organs are particularly practical and interesting. The work is produced in excellent style, with clear print and on good paper. To the every-day practitioner it must be of great service, and fills a gap in medical literature which has not heretofore been filled up.

Sore Throat: Its Nature, Varieties, and Treatment. By PROSSER JAMES, M.D., &c., &c. Fourth Edition. Philadelphia: Lindsay & Blakiston, 1880; Toronto: Hart and Rawlinson.

The author is well known as one of the earliest and most trustworthy writers on this subject, and his works are received both in Britain and on this continent as the most reliable text books we have. The volume before us is full of practical information, perhaps more valuable to the special Laryngoscopist than to the general practitioner, but still of sufficient value to the latter to pay well for its perusal.

In Chapters I. II. and III. he takes up the Nature and Varieties, Diagnosis and General Treatment of Sore Throat; in Chap. IV., Classification; in the next eight chapters, what he calls diffused affections, or what we would call special diseases; and in the next eleven chapters, diseases of individual organs.

In speaking of croup, he discards the idea of its dual character, and says that catarrhal and membranous croup are essentially one and the same disease; that whether it proves fatal or not depends upon the amount of plastic exudation and the degree of laryngeal spasm excited by it. He believes that in those cases called catarrhal, in which recovery often takes place, only a small amount of exudation is formed, and is rapidly expectorated or swallowed, and that when the exudation is sufficiently copious and plastic to form a decided membrane it is excessively fatal; but death may occur with well-marked symptoms of membranous exudation, and yet nothing but a thick stringy mucus

be found in the trachea. We have ourselves seen cases prove fatal with nothing but a thick rusty-coloured mucus filling the trachea after death, and can bear testimony to the truth of the author's statement that "In one case abundant tough exudation is present, and suffices to account for all the symptoms; in another, no distinct membrane is expectorated during life and none is found after death, and yet the symptoms may be similar."

We do not think he is as clear and decided in regard to treatment as he might be, for while he justly condemns blood-letting, we think he should be more clear in regard to emetics. These agents, properly chosen, will often do good, and as he says will often enable a child to bring up false membrane which he could not expel by his own efforts; but we are sorry to see him give a *quasi* approval to the use of antimonial emetics, as we are quite convinced that nearly as much risk is incurred by their administration as would result from allowing the disease to run its course. We have seen more than one child die from the effects of antimonial emetics, and we are satisfied that all the benefits to be derived from vomiting may be obtained by the use of less depressing agents. We have had better results from the yellow sulphate of mercury than any other emetic we have ever tried. The dose is small, tasteless, and prompt. Counter-irritation in the form of a large sponge squeezed half dry out of hot water, and held close to the skin of the throat till the part becomes quite red, he praises, and he also speaks favourably of cold compresses to the neck; and we know that when applied early they often arrest the disease very promptly, and we think patients treated with the cold compresses are less liable to recurrent attacks than those treated by other means. He highly approves of keeping the sufferer from croup in an atmosphere thoroughly impregnated with watery vapour—a practice we also highly commend.

When asphyxia is impending, he rather favours tracheotomy at an earlier stage than is usually chosen in this country or in Britain, as it appears to have been decidedly more successful on the continent, where it is resorted to at an earlier period than with us, and, moreover, if

not successful it removes the horrors of a death struggle, which is most painful to witness.

In regard to enlarged tonsils, he says they should never be neglected, as when they interfere with breathing, they prevent full inspiration to such a degree as to develop the pigeon-breast, which often ends in consumption.

In view of such a contingency, he advises their removal as soon as their influence on respiration becomes manifest and treatment fails to reduce them. But it is only necessary to remove a thin slice, when the remainder will shrink away to such an extent as to obviate all inconvenience. Hypertrophy of the tonsil should lead us to suspect a strumous tendency, and to adopt means to build up the general health while the child is growing. The most valuable means to accomplish that object will be sea-air and bathing, with good diet, cod liver oil, syrup of iodide of iron, and freedom from early lessons. Want of space forbids the pursuit of the subject farther, and we must refer the reader to the book itself, where much profitable and interesting matter on these very common diseases will be found.

Thus great Achilles, who had shown his zeal
In healing wounds, died of a wounded heel;
Unhappy chief, who when in childhood doused,
Had saved his Bacon had his feet been soused!
Accursed heel, that killed a hero stout!
Oh, had your mother known that you were out,
Death had not entered at the trifling part
That still defies the small chirurgien's art
With corn and Bunions— not the glorious John
Who wrote the book we all have pondered on—
But other Bunions, bound in fleecy hose,
To "Pilgrim's Progress" unrelenting foes!
—From Dr. Holmes' "Modest Request."

Births, Marriages, and Deaths.

MARRIAGE.

At Holy Trinity Church, Winnipeg, on the 18th ult., by the Rev. Octave Fortin, B.A., rector, Robert Dennis Richardson, son of James H. Richardson, M.D., Toronto, to Dora Louisa Freer, youngest daughter of the late Edward Stayner Freer, of Montreal.

DEATHS.

At Hamilton on July 13th, Dr. Thomas White, aged 35 years.

In Uxbridge, on Friday, July 23rd, Harold William, infant son of Dr. W. G. Metcalf, Medical Superintendent, Rockwood Asylum, aged three months and seventeen days.

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THE
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U. OGDEN, M.D.,
EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London,
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TORONTO, SEPTEMBER, 1880.

Selections: Medicine.

PULMONARY PHTHISIS.

BY WM. PEPPER, M.D.,

One of the Physicians to the Philadelphia Hospital, and Professor
of Clinical Medicine in the University of Pennsylvania.

GENTLEMEN—To-day I wish to ask your attention to catarrhal phthisis, which is the outcome of catarrhal pneumonia, and depends upon the fact that, the exudation, instead of being gradually removed by a process of softening and expectoration, passes more or less entirely into a state of cheesy change, that this has crumbled down, that the walls of the air vesicles have become involved, and thus the destructive process has been established in the lung. The first division that we must make of catarrhal phthisis is into the acute and chronic forms, and this depends upon two elements or chief reasons: first, upon the violence and extent of the original attack; and secondly, upon a weakness of the individual constitution, by which it yields more or less readily to the attack of disease. Thus, for instance, we have a form of catarrhal phthisis which, fortunately, is not very common, popularly termed galloping consumption, which is in reality a general catarrhal pneumonia, rapidly passing into a state of cheesy degeneration. In speaking thus of acute catarrhal phthisis, I do not refer at all to acute miliary tuberculosis.

This latter disease is a very rare affection. It has altogether a very peculiar history and course. It is much more like one of the acute infectious zymotic diseases in its course than it is like a local affection. It has a peculiar temperature curve, a peculiar state of the

nervous system and of blood intoxication, while the local signs in the lung are comparatively slight and obscure. It runs its course in from seven to fourteen days, terminating invariably in death. As a rule, it comes from the absorption of some infectious matter, from a previously existing centre of cheesy degeneration, although, in a few cases, it has exploded in an individual who has no such centre, but who has inherited a virulent degree of the tuberculous diathesis. Generally, in such cases, the disease appears early in life.

Acute catarrhal phthisis is, as I have said, the outcome of an acute catarrhal pneumonia, and runs a course whose length is dependent upon the severity of the attack and upon individual peculiarities. This affection is not recognized as constantly as it should be. This is because the physical signs are not well marked, and are not the ordinary physical signs of pneumonia, as we have come to consider it; that is, lobar pneumonia. Usually, when a patient is attacked with catarrhal pneumonia, he will not have very violent fever, marked dullness, bronchial breathing, and the other marked symptoms that we have in croupous pneumonia, and thus many cases are entirely overlooked. The affection may involve a very small area of the lung, or it may involve the whole of one lobe, or portions of both lungs.

Let me illustrate this by a case I saw a short time ago. A patient comes into my office and states that he has a bad cold, and that he had a slight rigor forty-eight hours previously. I find him distinctly feverish, with rapid pulse and respiration, and on examination of the chest there is found a left-sided broncho-pneumonia. Râles are heard pretty much all over

the left lung. The râles are some sonorous and some sibilant, formed in the larger tubes, and indicating a process of bronchitis of these tubes. With this there are heard, in a number of points over the front and back, coarse sub-crepitant râles. Very careful percussion shows that at several points in the left lung resonance is not perfect as compared with the resonance of the points immediately around them; not that it could be called flat, but simply less resonant than over the unaffected lung.

The patient is ordered home and to bed. The disease passes on through a stage, attended by a moderate degree of fever of rather a remittent type, with a rise in the evening to 102° or 103° and a fall in the morning to about 101° ; never entirely disappearing. This is attended with a good deal of perspiration; the skin is relaxed, the cheek of the affected side is flushed, and the patient loses flesh very rapidly; he becomes extremely anæmic; the tongue is foul and coated, but the appetite is pretty well preserved; the secretions are scanty, as in all inflammatory or febrile affections; the urine scanty and high coloured, and the bowels are constipated. The cough is troublesome, and is attended with considerable expectoration, at first of clear mucus, not rusty coloured, but soon becoming streaked with yellow lines, and gradually more solid and purulent in character.

The physical signs remain as I have described them, except that the râles gradually become larger and more moist, and are heard over the whole of the left lung, back and front. With this there is scarcely any dulness on percussion over the lung, and it is only by very careful examination that you will find four or five points of limited size, where there is distinct relative impairment of resonance. You would be surprised at the great disproportion between the numerous râles and the amount of dulness and the absence of pure bronchial breathing.

As the case advanced, the lower portion of the lung cleared up, the râles gradually diminished, and the respiratory murmur returned; but at the apex there remained râles, which became larger and larger, until they finally became almost bubbling in character, the respiratory murmur slowly became more blowing in character; diffused, hollow, blowing breathing.

Now, what has been the course of the disease in the lung? We have had originally a catarrh affecting the bronchial tubes. This has extended along the left bronchial tube until it has reached and involved the alveolar structure, and thus set on foot a broncho-pneumonia of the left lung. Such changes are very insidious in their course, and the disease may exist for a long time before being discovered.

Catarrhal pneumonia is to be distinguished from bronchitis by its unilateral character, the presence of sub-crepitant râles, the detection of small areas of dulness, by careful percussion, and by the degree of febrile action. The exudation is not of a croupous but of a catarrhal character; the walls of the alveoli have been attacked so that the cells are no longer able to rapidly get rid of the exudation. It takes a long time to accomplish this, so that at the end of six or eight weeks râles may still continue at the apex of the lung. A portion of the exudation undergoes cheesy degeneration, breaks down, and is discharged slowly.

Will it ever be removed, or will it pass into a state of catarrhal phthisis? This will depend upon the violence of the attack and the tendency of the individual. Every one is liable to an attack of catarrhal pneumonia, and in any one, owing to the causes before referred to, it may set on foot catarrhal phthisis. Of course, in a person who has a weak state of constitution, particularly if he has an inherited weakness and tendency to lung disease, or if his health has been broken down by any of the debilitating causes of which I have spoken, an attack of less severity will be able to start a catarrhal phthisis in his lung. We may have this disease running a very rapid course, and terminating in from six weeks to four or five months, with all the evidences of a catarrhal pneumonia, passing into a chronic form, with marked fever, night sweats, and breaking down of the lung tissue, and the patient slowly sinking, and finally dying. These are cases of galloping consumption, or acute catarrhal phthisis. There are one or two symptoms occurring during its course to which I shall allude more particularly toward the end of the hour.

In the more common form the disease is not usually so severe or general from the beginning;

but it begins like a common cold, and is, I am sorry to say, often mistaken for an ordinary cold. The patient does not trouble himself much about it, but thinks that it is an ordinary cold, such as he has often had, and that he will be well in a few days. If such a patient was carefully examined, it would be found, instead of there being an ordinary cold, by which we mean a catarrh of the upper air passages, that there was considerable febrile action, more than usually occurs with a simple coryza, or a simple catarrh of the throat.

On carefully examining the lungs, there would be found, at some parts, physical signs indicating a slight degree of catarrh of the small tubes and air cells. The points where you will usually find these signs are at the apex and the root of the lungs. The physical signs that, as a rule, you will meet with, are such as these: in the first place, they merely indicate congestion of lung tissue, and a slight catarrh, feebleness of the respiration, with prolonged expiration, and on very deep breathing, or after coughing, you will have a few sub-crepitant râles; or there may be more marked catarrh; then we will have sonorous and sibilant râles, with more copious sub-crepitant râles; or lastly, the attack may be attended with a large amount of exudation; then there will be a slight impairment of resonance, a little difference on the affected side, as compared with the surrounding healthy lung, the respiratory murmur rather harsh and blowing, the expiration prolonged, and the râles more marked.

Now, these are the physical signs met with in a localized pulmonary catarrh, which is, in reality, a simple circumscribed attack of catarrhal pneumonia. You see that these are very slight signs, and unless the physician is wide awake and the examination very minute, they will very likely be entirely overlooked. If you simply run your ear over the chest, without removing the coat and vest, you will be sure to mistake the nature of the attack.

The febrile signs pass away in from two or three days to a week, and the patient appears to have regained his ordinary health. He has a little expectoration, which diminishes, and the cough passes into a simple, dry, hacking cough. He goes about his business, and continues, for

an uncertain time, pretty well. Another attack similar to the first occurs, perhaps after two months, or perhaps after a longer period. This attack is more marked, and the nature of the disease more easily determined; but I have had cases where there had been evidence of at least five or six attacks, and where their nature had never been recognized until after a period of nine or ten months, and not until the disease, which had at first involved only a trifling spot, had involved a considerable portion of the lung.

This is the history of three out of four cases of so-called consumption. They commence as ordinary colds; the patient will tell you that he has a neglected cold, which has finally settled itself upon the lung. The probabilities are that this was an attack of catarrhal pneumonia, involving a small spot of the lung, and as each attack has occurred, it has involved the affected spot, causing an extension of the inflammation, until finally the exudation has passed into a cheesy state, the tissue of the lung has become involved and broken down, and phthisis has resulted.

I would, therefore, dwell on the extreme importance of recognizing the early stage of this disease, and it is only by a minute physical examination that we are enabled to tell whether a patient who has a feverish cold has a simple catarrh of the upper air passages or a slight catarrhal pneumonia. Any patient who has a catarrhal pneumonia, no matter how small the affected spot may be, is in danger of having it remain and pass into a catarrhal phthisis or develop tuberculosis. It is of the greatest importance to recognize catarrhal pneumonia, because, while it is true that, after the disease has involved a large portion of the lung, with destruction of its tissue, an entire cure is impossible, it is equally true that in the early stage, before destruction has occurred, the process is curable, in the majority of cases. It is only in those cases where the constitutional tendency or the individual peculiarity is very marked, that we find a resistance to our treatment in the beginning of the attack. I think it is no exaggeration to say that the great majority of cases of consumption are curable in the early stages. We will hereafter see how far it is curable in the later stages.

Suppose the patient does not consult us in the early stages, but after some period of time has elapsed, what will be the conditions present? I have a number of patients here who illustrate these conditions. After the acute stage has passed it leaves behind certain changes in the lung, and the patient presents certain general symptoms. Let us first study these general symptoms. They vary greatly, according to the state of the local trouble, but much more according to the individual peculiarity. Sometimes a patient with positive lesions in the lung will seem to be in ordinary health, keeping his flesh very well.

Now, here is a lad who has a small circumscribed cavity under the clavicle. He had when he came in a catarrhal phthisis of the left apex, profuse night sweats, quite rapid emaciation, and marked physical signs, but no spitting of blood. The acute stage passed away, but has left behind an induration of this upper right lobe; he has gained in flesh, the night sweats have stopped, and he has the appearance of being in pretty good health for a person who has been confined so long in a large hospital. Some patients, then, will present almost ordinary health, with scarcely any febrile action, with little cough and expectoration, and they will scarcely believe you when you tell them of the local disease in the lung. More frequently you will find that such patients present a history of recurring febrile attacks.

Now, for instance, this man, Fisher, who has a catarrhal phthisis of the whole upper lobe of the right side, with only small centres of disease scattered throughout the lobe, not giving rise to any marked dulness, but causing impaired expansion of the upper part of the right lung, weakness of respiration, prolonged expiration, and on coughing or deep breathing slight mucous râles, indicating that the lung has passed into a state of degeneration, leaving, I fear, little ulcerated spots, has presented in the highest degree these occasional febrile attacks.

If while he is feeling perfectly well a change of weather occurs, or he makes some unusual exertion, or sometimes without any apparent cause, he will have a little creep, followed by fever. He will feel a little sick and lie down,

but in the course of twenty-four hours he again feels better. He has more cough, and examination shows the physical signs to be more marked. I suppose that since he has been under my observation he has had eight or ten of these attacks. Such attacks are highly characteristic of catarrhal phthisis in its chronic variety. The patients become so susceptible to any disturbing cause that they will have such attacks even under the best of care, and with every attack you will observe that there has been a fresh development at some part of the lung, usually around the affected area. These occasional febrile attacks the patient ascribes to fresh colds, and there is a certain amount of truth in this, because there is, with each attack, an extension of the catarrhal process.

During the whole course of the disease there is apt to be some irregular febrile action. This varies much in different persons; for instance, this patient is almost entirely free from fever; this next man has more marked febrile action, with a morning temperature of 98° and an evening temperature of 99.5° ; while this one has a continued febrile action, and his morning temperature is never down to normal. As the disease advances and the system becomes more and more broken down, the fever assumes a marked hectic type.

I have now a patient under my care, with catarrhal phthisis, in whom the morning temperature is never below 102° , and the evening temperature 104° , 105° , or 107° . I have found her sitting up in bed, feeling pretty comfortable, with a temperature of 107.5° ; but, of course, this high fever is only seen in exceptional cases, where the system is strongly predisposed to fever, or where the local process is highly irritating.

With this fever we are very apt to find night sweats, and, popularly, these are regarded as certain signs of the existence of consumption. As a rule, however, night sweats are only an evidence that the patient has had hectic fever, and that after the fever there has been a crisis, accompanied by sweating. Generally, they are not very injurious, but sometimes they are excessively profuse, and thus cause exhaustion. Thus, in the lad, the fever was not very high, but the night sweats were very obstinate, and

resisted almost every known remedy for that condition. Sometimes, after a patient has recovered from a catarrhal attack, he is very much predisposed to profuse sweating. When this occurs, it is a very significant symptom. I have repeatedly had patients, who were suffering from night sweats in a very marked form, tell me that some years previously, after getting a slight cold, they had troublesome night sweats for three or four weeks, which had been stopped by treatment.

You will occasionally meet with cases in which the hectic fever and night sweats are so pronounced that they mislead you as to the nature of the trouble. You may mistake it for malarial fever. Sometimes the patient will tell you that he was perfectly well until he had an attack of chills and fever. On examination, you will find that he also had a little cough and expectoration. In such cases the patient has had a slight catarrhal pneumonia, with the hectic fever and sweats well marked; but after the attack has passed into the chronic form the chills and fever have become more moderate. Hence, when a patient presents a history of an apparent malarial attack, and if he has a slight cough, you should study the lungs very carefully. Night sweats are then a frequent symptom of phthisis; but, as a general rule, they are not to be regarded so much as causing harm as the hectic fever which causes them.

All these patients present marked anæmia. There is great impairment in the power of the blood-making apparatus. They lose the power of keeping up their circulation under exposure, and are apt to have cold hands and feet, although you will often find that the palm of the hand burns with a hectic flush. You will also usually recognize the well-known hectic flush upon the cheek, which gives a deceptive appearance of health.

Loss of flesh is a very constant symptom, much more so than you would think if you believed what your patients tell you, for they will often insist upon it that they are keeping their weight. In some of these cases there is a strange blindness on the part of the patient as to his true condition. There is only one way to determine the question, and that is to weigh the patient yourself. I long ago adopted the plan of

weighing my phthisis patients at short intervals, in order that I might know the effect of phthisis upon this point; and as a matter of fact, I think you will find that no one symptom is more worthy of study or more important as showing the condition of the patient, than this variation in the weight. If a patient, although his cough and expectoration continue unchanged, is slowly gaining in weight, I think it is a most favourable sign; but if a patient continues to lose weight, while the other symptoms improve, I consider it an unfavourable omen. This loss of flesh is sometimes very rapid, rendered so by the high degree of fever, the copious purulent expectoration, and the intermittent attacks of diarrhœa, of which I shall speak more particularly in a few minutes. Sometimes it is very slow, and the patient will keep his weight for some time.

Loss of strength and shortness of breath is always presented by these patients. They give out on the least exertion, and this exertion causes considerable shortness of breath. The shortness of breath is caused partly by loss of power in the respiratory muscles and heart, and partly by the actual crippling of the lungs; but when the patient is quiet you will be amazed to find how little they suffer from shortness of breath. I do not suppose that one of these five men before you suffers from any conscious shortness of breath. This seems to be due to the fact that, as the lung is involved, there is a corresponding wasting of the solids and of the blood, and a corresponding diminution in the chemistry of the body; there is less blood to be oxidized, and consequently a smaller amount of pulmonary tissue suffices.

Cough is a very constant symptom; few patients are free from it; but I have had patients come to me and say that they have not coughed for several months. The cough of catarrhal phthisis varies according to the stage of the disease. In the early stage, during the acute attack, the cough is troublesome. This subsides and becomes of a hacking character, occurring at short intervals, but frequently leaving the patient free at nights. As the disease advances, and the exudation breaks down, you will find that the cough becomes more severe and harder, and is apt to occur especially at certain times

of the day, particularly if a cavity has formed, which fills up, and coughing comes on, and it is emptied. This may occur with the regularity of clockwork. When the cough is hard and spasmodic, particularly when matter is raised from the lower part of the lung, it may excite vomiting, which may prove a troublesome complication.

The matters expectorated are, in the early period of the case, simply catarrhal products and clear mucus; as the disease progresses they become streaked with yellow, and later they acquire a solid, yellow character, floating in a certain amount of bronchial serum or mucus. It is impossible to determine the state of the lung from the character of the sputa, for sputa having all these characters may be produced at any stage, because, while the lesions at one part may have reached the final stage, they may at another point be just beginning. The patient may have a severe phthisis, and raise very little, while another with a small amount of disease may raise a large amount. We must, therefore, conclude that a large amount of the expectorated matters come from the bronchial mucous membrane.

In many cases you will find that the patient complains of local pains about the chest. These apparently depend upon small local attacks of pleurisy, or sometimes upon attacks of muscular rheumatism, to which such patients are exceedingly liable, on account of the relaxation of the whole system.

There are certain special symptoms which may occur during the course of phthisis, to which I will now allude. The first of these, hæmoptysis, or spitting of blood, is a symptom universally dreaded, and always regarded as a certain sign of consumption; but I know of no symptom whose significance is so much misunderstood. There is no difficulty in recognizing when a patient has hæmoptysis; the character of the blood and the way in which it is raised will indicate its origin; but it is very difficult to decide upon the precise spot from which it comes. Undoubtedly, in the larger number of cases, it comes from the bronchial mucous membrane, especially of the smaller tubes. In other cases it comes from the capillaries of the lung. In others from a vessel of con-

siderable size which has been opened by ulceration.

In what condition does it generally take place? We notice it in many cases at the very beginning of the attack. Now, as long as it was the habit to say there was a deposit of tubercle in the lung, and the irritation from this deposit caused the hæmoptysis, hemorrhage was regarded as a sign of tuberculosis of the lung; but as a matter of fact, those cases that have hemorrhage are least apt to have tubercle. In tubercle, as I have described it to you, no blood-vessels exist; no anatomist has been able to discover any capillaries in it; and when it forms in the wall of a blood vessel, a clot forms, and the vessel is closed. Where you meet with hæmoptysis in a person who has been apparently well, you will find that it usually occurs from an acute attack of catarrhal pneumonia or congestion of the lung.

We thus see that hæmoptysis is most frequently an evidence of acute congestion or acute catarrhal disease, and that it generally occurs at the very beginning of the attack, and that when it appears during the progress of the chronic form it will usually be found that each attack of hæmoptysis marks an acute extension of the disease.

I have a few more remarks to make in regard to hemorrhage, which I shall defer until we meet next week.—*Medical and Surgical Reporter.*

DIAGNOSIS OF BRAIN DISEASE.

The April number of the *Journal of Nervous and Mental Disease* contains an extremely interesting and able review of Nothnagel's work on "The Local Diagnosis of Cerebral Diseases—a Clinical Study," of which we present the following abstract. The opinions of Prof. Nothnagel are fairly embodied in the conclusions with which he ends the discussion of the symptomatology of the lesions of each particular region of the brain. The first part considered is the cerebellum:

1. CEREBELLAR AFFECTIONS may remain latent and defy diagnosis. This is regularly the case with permanent or destroying lesions located in one hemisphere.

2. Space-limiting lesions may, on the other hand, produce manifold and complex phenomena.

3. As characteristic of cerebellar disease, we reckon only disturbances of co-ordination, especially a reeling gait with vertigo. These symptoms are also present in other central nervous affections, and cannot, therefore, be regarded as pathognomonic. The presence of cerebellar disease must be assumed from the sum of the positive and negative symptoms.

4. Cerebellar reeling always indicates a functional implication of the middle lobe, whether this be the original seat of the disease, or whether it is only embarrassed by crowding or pressure.

5. Disorders of co-ordination and vertigo may be wanting where the disease is located chiefly in the hemispheres, and, exceptionally, they may be wanting when tumours of slow growth are localized directly in the vermis. If an affection situated in the posterior cranial region, below the tentorium, is suspected on other grounds in those cases, the diagnosis of original or secondary disease of the cerebellum can only be approximate. It cannot be proved.

6. Aside from those noted under head 3, no symptoms are at present known that can be considered as expressive of disorder of the cerebellar functions. Perhaps certain disorders of speech (anarthria [?]) in extensive atrophy of the cerebellum may be so considered, but this is not certain.

7. Vomiting, when continuous and severe, may support the diagnosis of cerebellar disease, but it is not conclusive since it occurs in other cerebral diseases. It is absent altogether in destroying lesions, and is by no means regularly present in crowding lesions.

8. The same is true of amblyopia and amaurosis, respectively, choked disk and optic neuroretinitis.

9. Headache is present only in cases of crowding or pressure lesions. Its fixed locality in the occipital region under certain circumstances may suggest cerebellar disorder, but is no more conclusive in this respect than its location in the frontal region would be in an opposed sense.

10. The most various disturbances in the functions of cerebral and spinal motor and sensory nerves may attend cerebellar disease, but

only in case of pressure lesions. They have, therefore, no diagnostic value, but are liable to mislead. Nevertheless, sometimes, some one symptom may be isolated, which will permit a closer local diagnosis. Thus, complete right-sided paralysis of the whole facial indicates that the tumour is on the right side, and pronounced hemiplegia indicates that it is on the under surface. But positive conclusions must be guarded against.

11. Psychic disorders are absent except under such circumstances as may develop them in any lesion of the brain.

12. The author, in contradistinction to Hughlings Jackson, holds that tetanus, either of the neck or of the whole body, is not of any value in local diagnosis. * * * *

CRURA CEREBELLI.—As regards lesions of these parts, he concludes that only those of the medium crus to the pons afford a symptom that is at all diagnostic. It consists in a peculiar deviation of the eyes, the one downward and outward, and the other upward and inward, the body turned in the direction toward which both eyes (apart from their direction in a vertical sense) are directed. Thus far, clinical observation has demonstrated these symptoms as attending no other lesions than those of the middle cerebellar peduncle. Other symptoms that may attend lesions of the cerebellar crura are conjugate deviation of the head, eyes, and body, vertigo, and inclination to fall to one side or the other. The conjugate deviations are sometimes toward and sometimes away from the side of the lesion—the cause of this discrepancy being unknown.

PONS VAROLII.—The diagnosis of local lesions of pons varolii is treated at length. Recent hemorrhages into this part can be diagnosed with certainty only when the special cross paralysis is present, but it may be regarded as probable when the attack is accompanied by general convulsions and contraction of the pupils and is followed by death within a few hours. The following are the diagnostic features:

1. Stationary intra-pontine destroying lesions may produce disorder of the function of the motor, sensory, and vaso-motor nerves of the extremities, and of the 5th, 6th, 7th, 8th (?), 11th (?), and 12th cranial nerves. Pressure

lesions may produce symptoms indicative of implication of the 9th and 10th nerves.

2. The number of nerves involved varies according to the size and seat of the lesion, though it is not possible to say with certainty from the nerves involved what part (in cross section) of the pons is injured.

3. In many cases stationary lesions of the pons produce the same symptoms as some of those of the cerebrum, and cannot be distinguished from them.

Dys- and anarthria being more frequent with lesions of the pons than with other localized lesions, except those in the medulla, point with a certain degree of probability to the former.

5. Tumours and destroying lesions of the pons have a peculiar character in the presence of alternate paralysis. This forms, when present, the most important diagnostic mark, but it is not pathognomic, since it also occurs in basal affections. In the latter case, however, we have to do with slow chronic disorders. A sudden appearance of this symptom indicates almost certainly a lesion of the pons.

6. This alternate paralysis involves the motor and sensory nerves of the extremities of the side opposite the lesion and the trigeminus, abducens, facial (auditory?) and hypoglossus of the same side. Within these limits the extent of the paralysis may vary in different cases.

7. The paralysis of the extremities, motor as well as sensory (and vaso-motor?) is always contralateral to the lesion, but implications of the cerebral nerves mentioned under 6, may be either on the opposite or on the same side.

8. Whether conjugate ocular paralysis of the external rectus on one, and the internal rectus on the other side, is characteristic of lesions of the pons, is still uncertain.

9. Though anæsthesia is more frequent with lesions of the pons than with those of the cerebrum, it is not of diagnostic value. As regards the implication of special nerves, as of the abducens, if on the same side with the lesions of the brain, as shown by associated symptoms, it indicates almost certainly that the lesion is located in the pons.

10. Difficulty in swallowing and disturbances of respiration and circulation may be corroborative, but they are not fundamental.

11. Ataxia appears in exceptional cases of disease of the pons, and it would not, therefore, contra-indicate their diagnosis as such. Its relative frequency in cerebellar disease, however, lessens its value as a symptom of pontine disease.

12. The various so-called impulsive movements, such as backward, pendulum movements of the members, etc., are only accidents, and therefore of no diagnostic value. Lateral decubitus, or moving or drawing to one side, have not been observed in man, except with implication of the crus cerebelli in the lesion.

13. Spastic phenomena limited to a single group of muscles are rare, and can assist the diagnosis only with a special combination of symptoms, such, for example, as trismus.

14. Epileptiform convulsions are not present in stationary lesions and tumours, but they have a certain diagnostic value in cases of recent hemorrhage and embolism.

15. Sensory phenomena are not among the probable symptoms of diseases of the pons, and as yet there have been too few observations as regards the auditory nerve. Still the appearance of unilateral disturbance of hearing must be taken into consideration in forming a diagnosis. Contracted pupils, when present in an apoplectic attack, possibly point to the pons.

16. Vomiting, headache, and vertigo are present in pressure lesions of the pons under the same conditions in which they appear in other portions of the brain. * * *

LESIONS OF THE MEDULLA can only be diagnosed with approximate certainty, and then only in a small number of cases. The most distinctive features are dependent on implication of the cerebral nerves, and the most important of them are dysphagia, aphonia, and disturbances of respiration and circulation. The paralysis may be either hemiplegic or paraplegic, but pronounced anæsthesia has not, as yet, been observed with these symptoms.

OF LESIONS OF THE CRURA CEREBRI, the author says, the characteristic symptom is paralysis of the motor oculi, usually involving all its branches, on the same side with the lesion, and opposite the paralysis of the extremities. This may also appear with basal lesions, but if the paralysis, both of the members and motor oculi

is sudden and simultaneous, a lesion of the crus may be presumed. * * *

DISEASES OF THE TUBERCULA QUADRIGEMINA are rare in medical literature, and only a few observations could be utilized for fixing the question as to local diagnosis. From these, the conclusion was deduced that disease of the anterior pair almost always is accompanied with impairment or loss of vision. This symptom is not to be referred to the optic lobes necessarily, unless, with non-reacting pupils, it be of sudden appearance, and accompanied by other symptoms of local disease, and absence of posterior ophthalmic symptoms.

Lesions of the posterior are accompanied (not invariably) with paralysis of (certain branches?) the motor oculi, but the presence or absence of this symptom is not sufficient for diagnosis. The paralysis may be bilateral with an unilateral lesion, and in this case, if unattended with paralysis of the members, it suggests the optic lobes as the part involved. Disorders of equilibrium and co-ordination like those accompanying cerebellar disease, are also sometimes observed. * * *

LESIONS OF THE OPTIC THALAMI exhibit the following symptoms :

1 and 2. An absolute diagnosis of isolated lesions is impossible at present, except under specially favourable circumstances, for the symptoms are ambiguous.

3. Motor paralysis does not support the diagnosis of thalamic lesions, and when it exists we must assume the implication of other parts, even though the thalamus be the part principally involved.

4 and 5. The same is true of anæsthesia. If disturbances of sensibility, dependent on injury of that portion of the inner capsule which passes the thalamus, should occur, they might enable us to say that the lesion is situated in or near the thalamus, but they would not establish the existence of thalamic disease. The same is true of vaso-motor tracts.

6 and 7. Though disturbances of vision may occur, whether in the form of contralateral amblyopia or homonymous hemiopia, cannot be stated, they are not of great diagnostic value since they also appear with lesions of other localities. The same estimate may be placed on

the diagnostic value of hemichorea, athetosis and unilateral tremour.

8, 9, and 10. Increase or diminution of reflex excitability is not indicative of thalamic lesions, but, possibly, disturbances of the muscular sense and disorders of psycho-motor actions are.

In conclusion, thalamic lesions may be reasonably conjectured under specially favourable conditions, but they cannot be diagnosed with certainty. * * *

CORPORA STRIATA.—As most cerebral hemorrhages occur in these parts, the symptoms of them coincide pretty well with those of typical hemiplegia. Of late years the anatomy of the brain has been revised, and the corpora striata have been shown to consist of several physiologically distinct parts. More exact localization is now possible than was formerly the case. Our author studies separately lesions of six different localities in the striated bodies, viz.: Those of the lenticular nucleus; those of the caudate nucleus; those of the anterior portion of the internal capsule; those involving either the lenticular or caudate nucleus, with, at the same time, the anterior portion of the internal capsule; those of the posterior portion of the internal capsule; and those affecting only the lenticular nucleus or the optic thalamus, with the posterior portion of the internal capsule or the adjoining part of the radiant crown of Reil. His conclusions are as follows :

1 and 2. Destroying lesions of the corpus striatum may produce contralateral motor, sensory and vaso-motor paralysis, and if they be not extremely small they regularly cause motor hemiplegia.

3. If the lenticular or caudate nucleus alone be involved, the hemiplegia may gradually disappear; but if the internal capsule be affected, either alone or with the gray nuclei, the paralysis is permanent. In these permanent paralyses (*i. e.*, in lesions of the internal capsule) secondary contractures frequently occur.

4. The motor hemiplegia from stationary destroying lesions affects, regularly, both extremities of one side and the inferior branch of the facial, the muscles of the trunk usually being paretic. The hypoglossal nerve is either wholly unaffected or only affected in the beginning; it is not often permanently involved. In rare

cases the extremities of the facial nerve (including its upper division) are involved alone.

5. Lesions of the lenticular nucleus cannot be differentiated from those of the caudate nucleus.

6. If the lesion be limited to the anterior portion of the corpus striatum (which is supplied by the lenticulo-striate artery), motor paralysis is the only symptom.

7. In some cases hemi-anæsthesia is associated with the hemiplegia. Besides the paralysis of common sensation, the nerves of sight, hearing, taste, and smell may be impaired, though their impairment is not an essential part of the hemi-anæsthesia.

8. The hemi-anæsthesia indicates the implication of the posterior portion of the inner capsule with the adjoining foot of the radiant crown. Still lesions may exist in the posterior section of the capsule between the optic thalamus and the lenticular nucleus without causing anæsthesia.

9. Usually the motor and sensory paralysis disappear together, but exceptionally the former leaves and the latter remains.

10. Sometimes vaso-motor disturbances occur in the paralyzed members, indicating a lesion in the posterior part of the internal capsule.

11. Though hemichorea often accompanies anæsthesia, its relations to lesions of the parts of the corpus striatum already described cannot be stated.

CORTEX CEREBRI.—The conclusions deduced from an analysis of a large number of carefully reported observations are:

1. Disease of the superficies of the brain (the gray matter and the white medullary substance directly underneath it) sometimes causes marked phenomena and sometimes causes none.

2 and 3. Psychic disorders and dysphasic and aphasic phenomena point to cortical lesion. True, aphasia may occur without cortical lesion (in lesion of the centrum ovale), but these cases are so rare that the rule as stated may be accepted as the basis of diagnosis.

4. In purely ataxic aphasia the first locality to be suspected as the seat of lesion is the third left frontal convolution, but the possibility of a lesion of the insula must also be considered.

5. If, as appears probable from some observa-

tions, lesions of other parts of the brain may cause aphasia, it occurs so rarely that the location indicated must be first suspected. It is impossible from the character of the speech disorder to decide on the locality of the lesion.

6. Word-deafness indicates, most probably, a lesion of the left parietal lobe, particularly the third temporal convolution.

7. Hemiopia by itself is not conclusive evidence of cortical lesions. If it appear suddenly as the only symptom, perhaps after an apoplectic attack, with negative ophthalmoscopic appearances, it may be regarded as presumptive evidence of such lesion, most probably in the occipital region.

8. Unilateral disturbances of vision may occur with cortical lesions, but nothing can be stated in regard to their value in local diagnosis. Hitherto, they have been observed only with diffuse cortical lesions.

9. Disorders of cutaneous sensibility have no diagnostic value for cortical disease.

10. The conjecture is offered, hesitatingly, that unilateral disorder of the muscular sense when it appears as the only symptom, perhaps indicates a lesion of the parietal lobes.

11. Motor disorders accompany cortical lesions, and under certain conditions they enable us to locate them.

12. Sometimes the paralysis takes the form of ordinary cerebral hemiplegia, such as is commonly observed with lesions of the striate body, and it may or may not be accompanied with secondary contractures. In such a case diagnosis is impossible. The assumption of a cortical lesion would be supported if aphasia co-existed, but even then the paralysis may be dependent on a lesion of the striate body, associated with one of the third frontal convolution. A single ptosis co-existing with paralysis of the extremities, and of the facial and hypoglossal nerves, makes it probable that a cortical lesion is present. Pronounced disorders of sensibility occurring with motor hemiplegia, indicate either that the lesion is not cortical, or that if it be cortical it is very extensive, and extends deeply into the medullary substances.

13, 14, 15. Cortical paralyses are frequently monoplegias, partial hemiplegias, isolated paralysis of the facial and hypoglossal, of the arm,

rarely of the leg, of the arm and leg, or arm and face. When monoplegias exist, and their intra-cerebral origin has been established, they point, not with absolute certainty, but with great probability, to cortical lesion; though their precise form and development does not at all indicate this origin.

16, 17. Certain motor phenomena, as convulsions limited to certain muscular regions, and connected later with paralysis of the parts, are of great diagnostic value. They indicate with a high degree of probability the existence of cortical disease. In some cases, the clonic convulsions first make their appearance in paralyzed muscles, and in such the presence of a cortical lesion may be assumed.

18. In other cases the motor phenomena assume the character of an epileptic attack, but with this peculiarity, the spasms always begin in the same group of muscles. This form of convulsion always appears subsequent to a paralysis. It is presumptive evidence of cortical lesion. *

Lesions of the remaining portions of the brain cannot, according to Nothnagel's conclusions, be diagnosed with certainty.

INJECTION OF CHLOROFORM IN LUMBAGO.—B. W., a farmer, was attacked about the middle of March last with lumbago, by which he was confined to his bed eleven weeks. Had been treated during this time with tonics and counter-irritation, etc., without benefit. I found him, June 10th, lying upon the bed, unable to rise without assistance; severe pains in back and limbs while sitting.

I injected ten drops of chloroform in the lumbar region on the right side, giving great comfort. In three days after I injected fifteen drops more upon the left side. In ten days he was able to go about comfortably and slept well, whereas before he scarcely slept at all. He is now (July 12th) well, following his usual occupation.

The pain accompanying the injection was severe, lasting ten or fifteen minutes. For the relief of this a cold compress was applied over the parts for half an hour, with great benefit.—W. A. Bradford, M. D., Butler, Ky., from *Louisville Medical News*.

A RARE CASE OF VASO-MOTOR NEUROSIS OF THE LOWER EXTREMITY.

At a late meeting of the Société Médicale des Hopitaux (*Gazette Hebdomadaire*, April 9, 1880), M. Straus read a paper on the following rare cases of vaso-motor neurosis of the lower extremity. A man, thirty-five years old, a business employé, entered the Tenon Hospital on the 19th of June, 1879, on account of rheumatic pains in the right shoulder and left foot. He had no fever, no cardiac complication; the pains lasted for eight days, and rapidly yielded to rest and salicylate of soda. The patient was considered convalescent, when M. Straus observed on the left lower extremity the following curious vaso-motor phenomena:

Even when the patient is lying down, the foot and toes of the left side are the seat of marked turgescence with obliteration of the course of the tendons and red coloration of the skin. To the touch, there is a noticeable increase of temperature, in comparison with the healthy side. This turgescence, which is in nowise painful, does not extend beyond the ankle. The articulations of the foot and tarsus are entirely free and painless. When the patient is sitting down, with the legs hanging, the swelling and coloration of the membrane increases, especially on the toes and front part of the foot, without extending beyond the instep. The standing position still further increases the symptom, which reaches its maximum when the patient has taken a few steps; then the foot and toes of the left side become violet, as if phlegmonous, and the veins become conspicuous under the skin. There is no trace of varicose veins.

Walking is very painful, and can only be done on the heel alone: the patient cannot wear his shoe on the left foot; there is no paresis, or atrophy of the muscles, which respond readily to electricity.

He says that on several occasions, during ten years of military service, after being fatigued, or after forced marches, he has felt pain and swelling in the left foot, which prevented him from walking for several days, or even weeks. He was under treatment for rheumatic pains, neuralgia, etc.

These singular vaso-motor phenomena continued during the two months that the patient remained in the hospital. They were analyzed with care, especially the differences of temperature. Minute measurements were made almost daily, and showed a constant difference between the foot on the left, and that on the right side, increasing from 2 to 4 degrees centigrade, and varying according as to whether the patient was lying down, standing, had walked, had his legs covered, etc.

On the 6th of August, 1879, he was so much better that he could put on his shoes, he could walk, and was taken to Vincennes; but the vaso-motor paralysis still continued, as well as the thermic modifications.

During the past winter the patient has been able to resume his trade, and to take quite long walks, but in spite of the severe cold he could not put his feet near the fire. The left foot is always turgid and highly coloured, and between the two extremities the difference of temperature is 1.5° centigrade.

M. Straus refers to the important paper of Dr. Weir Mitchell, which appeared recently, and relates to cases which are almost identical (On a Rare Vaso-Motor Neurosis of the Extremities, in the *American Journal of the Medical Sciences*, July, 1878). He also recalls analogous facts observed by M. Vulpian and M. Sigerson, and, finally, to a recent observation by Mr. Allen Sturge, of London (see *American Journal of the Medical Sciences*, July, 1879, p. 258). Perhaps the disease is not so rare as it has appeared to be, and is often confused with rheumatoid conditions, paralysis, varicose veins, etc. M. Straus finishes his communication by a comparison between this vaso-motor neurosis and that described by M. Maurice Raynaud, under the title of local asphyxia and symmetrical gangrene of the extremities.

Do the vaso-motor disturbances in question (whether they be of a vaso-paralytic or of a vaso-dilative origin) relate, as thinks Dr. Weir Mitchell, to a disturbance of the vaso-motor medullary centres? M. Straus does not dare to decide, but he inclines toward an opinion broached by M. Vulpian on the subject of symmetrical gangrene of the extremities, and according to which these vaso-motor disturb-

ances would not necessarily proceed from a central spinal origin; they could result from the modifications (reflex or otherwise) sustained by the numerous peripheral ganglia which exist near the termination of the nerves in the vessels, and which control, in part, their innervation. The clearly defined *unilaterality* of the vaso-motor disturbances, in this case, seem to be an argument against the spinal localization of the disease.

M. Dujardin Beaumetz stated that he had been attacked by symptoms similar to those described by M. Straus. But their etiology was different. They appeared in consequence of the rupture of the tendon of the left patella.—*American Journal of the Medical Sciences*.

...

THE CAUSE OF BRIGHT'S DISEASE.

Drs. DaCosta and Longstreth, of Philadelphia, contribute a most valuable article to the July number of the *American Journal of Med. Sciences*, entitled "Researches on the State of the Ganglionic Centres in Bright's Disease." From the investigations of a large number of cases, extending over a period of several years, they have arrived at the following conclusions: 1. That in Bright's disease, especially in the contracting kidney, there exists a constant lesion of the renal plexus. 2. That while this lesion might be looked upon as forming part of a general process of degeneration in connection with the kidney-disease, we think it is the cause of the renal malady and precedes the degenerative changes. 3. That the diseased condition of the ganglia furnishes the clue to the alterations of the vessels of the diseased kidney. 4. That similar changes, producing similar results, may exist in other ganglia; for instance, in the cardiac plexus, explaining the hypertrophy of the heart. The details of nine cases are given, accompanied with illustrations of the microscopical appearance of the renal ganglia. Striking pathological changes were discovered in every case. For examining the ganglia the following method was pursued: The kidneys and all the structures in front of the vertebral column, including the aorta and celiac axis, were removed. From this mass

the solar plexus and its nerve-branches were carefully separated. The ganglion was carefully dissected while submerged in the preservative fluid, and that portion which gives off filaments for distribution to the kidneys was examined microscopically. Other portions of the ganglia were also examined for comparison. No satisfactory results were obtained from the examination of the nerve trunks supplying the kidneys. The glanglionic cells showed fatty degeneration, with oil globules and granular matter, their nuclei obscured. The basis substance was fibrous and fatty, and granular changes were present.

J. B. M.

COCA IN THE OPIUM-HABIT.—Seeing in the May number of the *News* an article by Professor Palmer, headed The Opium-habit—A Possible Antidote, I determined to give it a trial, and now send you the following report of the result :

Mr. J. T. B. commenced using opium in April, 1862, for chronic diarrhoea contracted in the late war. Since that time he had used on an average two ounces of opium a week. The coca treatment commenced June 24th. On the 25th he took ten grains opium, on the 27th two grains morphia sulph., on the 29th one and a half grains of morphia, July 1st one grain of morphia, July 3rd three quarters of a grain of morphia, and on the 5th, 7th and 9th one sixth grain of morphia. He took the coca *ad libitum*, or whenever the system demanded the opium. He took, as above stated, opium and morphine for several days. This he did, as we verily believe, for fear the coca would not cure him, and to-day says had he to go over it again he could stop the opium at once. After getting from under the influence of the opium he had a considerable diarrhoea, which was readily controlled by ten-grain doses subnitrate of bismuth.

It has been near two weeks since he took any coca, and no opiates since the 9th of last month, and to-day looks like another man. He says he is cured, and I believe he is. He has spent about eighteen hundred dollars for opium and patent nostrums said to cure the opium-habit.—Benton J. Hon, M.D., Orleans, Ind.
—*Louisville Medical News.*

Surgery.

CERTAIN ANÆSTHETICS.

BY W. H. HINGSTON, M.D., L.R.C.S.E., D.C.L., SURGEON TO HOTEL DIEU, MONTREAL.

Read before the Medico-Chirurgical Society, Montreal.

There would seem to be much similarity of action on the economy in the ethyls, methyls, and formyls, and in their adaptability to anæsthetic purposes.

Chloroform for many years held its sway, undisputed save by ether; and in the claims of each the Atlantic Ocean seemed to divide the two camps—British practitioners holding, in great measure, to the discovery of Simpson; and American practitioners to the anæsthetic of the Boston school. (I name not *his* name, for the modern Athens has not yet decided to whom to award priority in the introduction of ether.) In Canada, chloroform has been more generally used. I may say, until within the past few years, it has been used almost exclusively in hospitals and dispensaries. As I have not had any serious accident in the administration of either anæsthetic, I have come to regard *both* with confidence, and without misgivings.

Still, deaths are now and then recorded from ether, and more frequently still from chloroform; and in the hands, too, of the most competent. But I am satisfied these untoward results would be less frequent were the administrator of either anæsthetic to give his *undivided* attention to his work, and not occupy himself as too often happens in surgical cases, with the doings of the operator.

Still, as already observed, deaths are recorded, and will doubtless continue to be recorded in the future. To reduce that number to the minimum is the desire of us all.

A couple of years ago, at the recommendation of Spencer Wells, I made use of the bichloride of methylene ($C_2H_2Cl_2$), using that prepared by J. Robbins & Co., Oxford Street, London. It has the colour, nearly the taste, and very nearly the smell, of chloroform. I could see no difference in its action, and seeing no difference in its action, but much difference in the price, discontinued it. Spencer Wells claims that vomiting is less frequent with the

bichloride of methylene than with chloroform, but as I have not observed vomiting from the latter to be frequent when properly administered, I could see no difference in that respect. In the hospital, and out of it, I have used chloroform and ether indifferently; in long and tedious operations, generally inducing complete anaesthesia with chloroform, and continuing that condition with ether.

Not long ago attention was drawn in the columns of the medical press, and chiefly by Dr. R. J. Levis in the *Philadelphia Medical Times*, to hydrobromic ether. I procured a quantity of Wyeth's of Philadelphia, and the results I shall briefly state to you.

It was administered, as I have been accustomed to administer chloroform, on a thick towel folded into a cone. The air was excluded as I have been accustomed, except in old persons, to exclude the air when giving chloroform or ether. But while never measuring the quantity of chloroform, nor watching the pulse, some attention was paid to these matters with the new anæsthetic, measuring the quantity and often noting the pulse.

I was first struck with the rapidity of action of the bromide as compared with that of ether or chloroform, in inducing complete anaesthesia; and more still with the suddenness of the return to consciousness. So sudden indeed was this return that it appeared to some of those present on certain occasions that the patient had not slept at all.

In only one case was there difficulty in inducing anaesthesia. Upon a stout muscular young man an attempt was too suddenly made, and without any warning by my assistant, to bring him under the influence of the bromide. Considerable cerebral excitement was manifested, and the violent muscular resistance offered rendered the proper application of the towel extremely difficult. This was the only exception to what was observed in all the other cases, and could have been easily avoided by making an equally rapid influence, but with a more thorough assent on the part of the patient—the greater ease with which this anæsthetic is inhaled facilitating its use. With the exception noted there was scarcely any emotion, and no struggling, save in the case of an infant, who

could form no appreciation of the ordeal to which it was being subjected. As is the case with other anæsthetics, there was increased rapidity of the heart's action, and greater general arterial tension, as Dr. Levis terms it. With the increased frequency of the heart's action, there is, as might be supposed, increased frequency in respiratory movements, but less than with ether or chloroform; and less heaving than with the nitrous oxide gas.

In not one case have I noticed vomiting, and this alone would seem to give it a great advantage over chloroform, which, though occurring more frequently with the latter than it should, due in great measure to faulty administration, yet sometimes occurring notwithstanding every effort to prevent it.

The following notes of the exhibition of the new anæsthetic are not so complete as could be desired. They may be premised by stating that I was never accustomed to measure the quantity of chloroform or of ether administered to a patient; nor during the employment of either anæsthetic to pay any attention whatever to the pulse. Rarely if ever do I feel the pulse at the wrist or elsewhere, being firmly of opinion that when death does take place, the heart is always the *last* to register the untoward event.

In the trial of the bromide of ethyl I, for the most part, disregarded the pulse, but when noted it was recorded either by my colleague, Dr. Brunelle, or the *interne*, Mr. St. Jacques, or my student, Mr. Bastian, or myself, but not by them or by myself, and for the reason given, with anything approaching that exactness which obtained in Paris when the anæsthetic was undergoing trial there. The first trials were at the Hotel Dieu, then in the city, and also at Belœil.

1st. Mrs. P. M., æt. 26. Reduction of femoral hernia. 31st. Bromide of Ethyl, (C_2H_5Br). Complete anaesthesia in two minutes, which lasted seven minutes. Five seconds after I announced reduction, *i. e.*, after removal of the anæsthetic, patient was perfectly conscious. Pulse was not noted in this case, but breathing was scarcely increased in frequency. No stertor; no vomiting; and the return to perfect and sudden consciousness was as quickly

as after laughing gas. One of the Sisters of the Hospital and Mr. Bastian were present.

2nd. Scirrhus Breast.—Mrs. —, æt. 38. Pulse before operation was 74, and at no time during operation above 80. Respiration was scarcely influenced; and anæsthesia was complete in 55 seconds; and was kept up for 18 minutes, with 3vss. of $C_2 H_5 Br$. Hospital staff present.

3rd. Double Club Foot.—Patient, æt. 6 weeks. Complete anæsthesia in 30 seconds. Continued during division of plantar-fascia and posterior tibials of both sides. Removal of anæsthetic was followed in less than four seconds by complete consciousness, and full and entire wakefulness. Dr. Perrault, of St. Hyacinthe, besides hospital staff, present.

4th. Hon. Mr. O., æt. 55, for examination of elbow joint. 3ij. was administered; considerable excitement and struggling, from anæsthetic having been too early removed. An additional two drachms induced desired condition, and almost immediately after its removal entire consciousness returned. Dr. Brunelle present.

5th. Amputation above wrist joint.—Patient L. M., of Belœil, æt. 72. Dr. Perrault, who kindly administered anæsthetic, was not informed of its nature, and found its action satisfactory. No record was made of quantity in this case. Complete consciousness on removal of napkin.

6th. Talipes, double, same as case 3, above alluded to. It was now for division of both tendones achillis. The anæsthetic was given up same as in former instance, but the little patient was allowed to sleep after the operation, as is advisable after chloroform or other anæsthetic. The above two operations were performed at Belœil. Dr. Perrault present.

7th. Examination for stone in the bladder.—I handed the anæsthetic in this instance to Dr. Finnie, who administered it without having been made aware of its nature. I believe Dr. F. was quite satisfied with it.

8th. Operation for Hæmorrhoids.—A woman aged 30. The quantity was small, not more than 3iss. Anæsthesia was quickly produced, and the piles removed, but not till complete relaxation of the sphincters of the bladder and rectum had occurred. Notwithstanding

the complete anæsthesia which this accident denoted, intellection was almost instantaneous on removal of napkin.

9th. Anæsthesia for the removal of a portion of the lower jaw-bone in a middle-aged person.—The operation was a tedious one, and the anæsthetic was continued during its performance, the nose and a part of the mouth being covered with the napkin while the operation was being performed. Intoxication continued in this case long after the operation was over and the bromide withdrawn; the patient being somewhat demonstrative in her friendship. Several of hospital staff present.

It would serve no good purpose to mention other cases where no features of special interest were observable.

Bromide of ethyl has now, for a time at least, taken the place of other anæsthetics at the Hotel Dieu; and as no features of special interest have been observed, none are here recorded. In private practice I have had occasion to use it many times since I commenced its use at the hospital, and from my experience, so far, I am disposed to give it the preference over chloroform, on account of its milder and pleasanter action. Over ether it has one great advantage: pure bromide ethyl is non-inflammable. By the surgeon who adds, to his usual armamentaria, lamps and atomizers, that disease germs may be brought to understand: "So far shalt thou go, and no further," this quality of the new anæsthetic will be duly appreciated.

As the introduction of bromide ethyl is recent, and is already being extensively used in the adjoining States, manufacturers are vying with each other in placing the article before the profession. It is evident they have not all been equally successful, and several varieties are said to have been exhibited; one containing so much ether that it ignited; another so disagreeably pungent and irritating as to be not easily inhaled. So far as I have learned, but one kind has reached Montreal, that of Wyeth, of Philadelphia. I had, first from Mr. Gray, and afterwards from the manufacturers, an article which seemingly possesses the peculiar yet not disagreeable odour, and the quality of non-inflammability which should characterize the proper article.

It will suffice to say that I have used chloroform or ether in hospital or private practice but once or twice since I commenced using the bromide of ethyl, and the conclusions at which I have arrived after a short, yet I believe a sufficient, trial are :

1st. That bromide of ethyl, or, as it is indifferently called, hydro-bromic ether, is an anæsthetic of great value.

2nd. That being less pungent than ether, and less irritating than chloroform, it can be administered with greater facility than either.

3rd. That it is far more rapid in its action than ether, and even more rapid than chloroform.

4th. That the pulse and breathing are less influenced than with ether or chloroform.

5th. That there is less resistance and struggling on the part of the patient.

6th. That judging by limited experience, vomiting is less frequent than after chloroform or ether.

7th. That in no case was there disposition to fainting.

8th. That it is eliminated from the body much more rapidly than any anæsthetic except laughing gas.

If the above propositions are fairly stated, it follows as an obvious corollary that bromide of ethyl is one of the, and in some respects the most valuable anæsthetic hitherto used.

I confine my observations, advisedly, to the use of bromide of ethyl in surgery. What aid the accoucheur may obtain from it remains, in great measure, to be seen. Dr. Turnbull claims that, when used in tablespoonful doses, when the pains are most intense and distressing, it gives as prompt relief as ether, and yet it did not interfere in the least with the expulsive efforts. The quantity given appears large, and would indicate that it had been administered as chloroform usually is in obstetric cases, largely diluted with air; whereas, in all my surgical cases I have endeavoured, save in old persons, to have the air excluded as much as possible.—*Canada Medical Record.*

DRESSING FOR BURNS.—Iodoform, ʒi; spermaceti, ʒi; extract of conium, ʒij; carbolic acid, gtt. x. Spread on some soft material and cover the burnt parts.

Midwifery.

ON THE USE OF INTRA-UTERINE STEM-PESSARIES.

BY ALBERT H. SMITH, M.D.

So much has been said for and against the use of intra-uterine stem-pessaries, and especially have such violent and sweeping condemnations been uttered recently against them, that it becomes impossible, except through careful observation and the results of clinical experience, to arrive at a just estimate of their value, and to assign them their proper place in the list of surgical appliances. While some recent authorities, as Barnes, Goodell, Tilt, Hewitt, Schroeder, and Winckel, accept them without question as therapeutic agents, to be used, of course, discreetly and judiciously,—as may be said of all therapeutic measures,—yet it must be admitted that the great proportion of gynecologists stand with those (as Thomas and Courty, of Montpellier, and De Sinety) who teach that they are instruments whose capabilities for harm far outweigh their possible usefulness, and some even in the more extreme position of unqualified condemnation, with Nonat and Emmet. When we find it stated by the last-named eminent author—excelled by none as an accurate, honest, and conscientious observer of his cases—that “experience will at last teach every one that no permanent benefit is ever derived from its use, that no degree of tolerance is ever established, but that sooner or later, in almost every case, mischief will result,” it can be considered only as an unpromising work to attempt to convince the mass of the profession that there can be any virtue in the intra-uterine stem. And yet I have had such excellent results from its use, and have come to look upon it as such a necessary therapeutic means in the management of certain kinds of cases, that, at the suggestion of a valued friend among us, I have determined to make it the subject of a paper, in which I can bring forward my own views and observations,—not authoritatively at all, but mainly to elicit discussion from others who have had experience perhaps far greater than my own.

The intra-uterine stem appears first to have

been proposed by Velpeau, who, however, did not strongly urge its use, and it was abandoned until again brought into notice by Sir James Y. Simpson, more with reference to its use as a dynamical exciter of functional activity than as a mechanical agent in reducing deviations. Shortly afterwards Valleix and Kiwisch came out boldly in favour of its mechanical application, using it in combination with an external framework or support. Since his day it has been in use, with various modifications in shape and material, and adopted with reference to its efficacy in various morbid conditions.

The forms in which it has been used are (1) the *simple* stem, with bulb or disk in the vagina, or attached to a vaginal pessary or to an external framework, and (2) the *bifurcated* spring stem. Of these, I should reject the stem of Valleix, or any of its modifications with external attachment for the purpose of a permanent fixation by grasping a solid rod in the uterine canal, as utterly unsound in theory, and dangerous in the extreme in practice. The essential qualification of a *vaginal* pessary is that it shall recognize and permit the natural mobility of an organ which was arranged by nature specially for adaptation to the various changes of position of the body and the various relations of the surrounding viscera which depend upon their distension or collapse, and no pessary is safely left in the vaginal canal without close watching which in any degree depends for its action on pressure upon an immovable basis of support, such an instrument soon showing that it has been adopted in violation of nature's teaching, by the painful sense of pressure at first, and soon afterwards by the development of ulcerative inflammation at the point of firm contact, and, if long left without relief, perforations and fistulous openings into the bladder, or rectum, or peritoneal cavity. If, then, such pressure is unjustifiable in the vagina, with its ordinary slight sensitiveness and its capacity of tolerance of pressure, how vastly more should we hesitate to subject to such an influence the cavity of the uterus,—so sensitive and easily excited to inflammatory action, and so liable to transmit its irritations to the neighbouring peritoneum and connective tissue! If there are dangers arising from the simplest form of

stem which require careful and conscientious looking after,—which I not only am free to admit, but wish to impress upon you seriously,—I think I am justified in discountenancing absolutely the fixed stem, which never can be required, and must always be vicious in its influences. This statement will apply equally to fixed stems which derive their support from vaginal pessaries not freely movable in the pelvic cavity and permitting the natural change of position of the uterus, such as the hystrophore of Zwancke or Schilling—dangerous instruments in themselves, even without any intra-uterine attachment. In short, the only stem with vaginal combination which I have ever felt warranted in using is that of Dr. Chadwick, of Boston, of which I shall speak hereafter.

To the spring or self-retaining stem I can scarcely give a more enthusiastic commendation than to those just mentioned, although it is certainly a safer instrument; and, as it has the endorsement so fully of such authorities as Goodell and Barnes, I must accept it as a form of stem capable of useful application. The objection to it, however, not only upon theoretical grounds, but also from results which I have personally observed in many cases, is that it retains its position in the cavity by the continuous lateral pressure upon the internal surface of the uterus of expanding wings. That this continuous pressure is not so pernicious in its influence as that of the stem with external fixed attachment I am very ready to admit, because in the case of the latter the pressure is attended with rude and violent thrusts against the sensitive tissues with every change of the body or of surrounding organs; but even the gentle pressure of the spring exerted uniformly and continuously tends to establish ulcerative inflammation and ultimately to imbed the arms of the stem in the uterine tissue, exciting general parenchymatous metritis and metrorrhagia. The least objectionable form of this variety is that of Chambers', having a bifurcated vulcanite stem, making only gentle pressure; Lawson Tait's, with its soft-rubber wings, like those of Sir Henry Thompson's self-retaining catheter, and Bantock's, with the steel springs, are instruments which I should hardly expect to have retained safely in any uterus for twenty-four hours.

All that I consider necessary or desirable for ordinary use is a stem consisting of a simple rod terminating in a rounded expansion at one end and in a flat disk at the other. It should be of non-corrosive material, which can be made slender enough, while retaining its strength and firmness, to be slightly flexible and elastic, and to occlude as little as possible the canal of the cervix. Vulcanite fulfils these requisites completely. Its length should vary with that of the canal in which it is to be inserted, never reaching to within three-eighths of an inch from the level of the os uteri to the roof of the uterine cavity. The inner extremity should end in a slight bulb, not so large as to interfere with its ready introduction or to press with its lateral surface heavily upon the uterine wall, nor so small as to present any sharpness to catch in the rugæ of the cervix in its introduction. The other end should be inserted into the centre of a flat circular disk, smooth and free from sharp edges, thin enough to occupy practically no space in the vaginal canal, or, by its pressure upon the posterior wall, either to ulcerate the mucous membrane or excite rectal tenesmus, and large enough in diameter to present a comfortable surface to the vagina and to prevent any possibility of its entering by pressure into the cervical canal, and thereby permitting the inner end to strike upon the fundus uteri. Such an instrument can be introduced into the uterine cavity with little or no pain; can be worn, in cases free from parenchymatous metritis or parametritis at the time of introduction, without consciousness of its presence,—as I can testify from personal experience in many cases,—for months, interfering with neither the social nor the domestic duties of the patient. I have used it now for two years with great satisfaction, excluding every other form except that of Dr. Chadwick's, which in a class of cases—which I will more fully consider hereafter—I sometimes have substituted successfully. This instrument consists of the stem which I have described, having inserted into two holes in its disk, upon the vaginal surface, a wire staple so bent into a hook-like shape that it will receive into its grasp a flexible ring pessary; this to be not large enough to prevent free movement of the cervix in the pelvic cavity,

but only to retain it in its direction towards the sacral hollow,—this being free from the objections urged against the stem with vaginal attachment involving a fixation of the stem in the pelvic cavity.

The introduction of the stem involves at first a good deal of nice and delicate manœuvring when it is used in a case of flexion with much distortion of the canal, but so soon does the canal adapt itself to the presence of the straight stem that if for any reason it requires removal and readjustment the second introduction becomes very easy; and I have a patient—a lady of intelligence and close observation—suffering from retroflexion attendant upon a small, sensitive fibroid in the posterior wall, who has learned to remove and replace the stem, as well as the vaginal pessary, both of which she has now worn for several months.

That the stem should never be inserted with any considerable force need scarcely be stated: it is a rule which suggests itself to every careful practitioner. The speculum can never be used with advantage, and is usually a serious hindrance to the passage of the stem. In any case of flexion the presence of any form of speculum, even Sims's, would interfere with the free movement of the outer extremity of the stem in adapting the inner end to follow the course of the canal. Before selecting the stem, of which three sizes are necessary,—two, two and a quarter, and two and a half inches,—the length of the uterine cavity should be accurately measured by the introduction of a graduated sound, and the stem selected which will measure, from its tip to its insertion in the disk, three-eighths of an inch less than the measurement of the canal. In using the sound for this purpose, the operator should at the same time observe carefully the course of the canal and its perviousness, and, if it be very tortuous or at any point closely constricted so as to render the passage of the sound difficult, there should be introduced either a flexible or metallic bougie or a uterine expanding dilator, such as Ellinger's or Wilson's; and in some cases I have found it desirable, when the canal was very tortuous, to pass the narrow stem between the separated blades of the dilator while still in position. The plan mentioned by Dr. Goodell, in a discussion in the Transactions of the Gy-

næcological Society, of retaining the sound in the cavity and following its course by the point of the stem, is a good one in many cases. It is rarely of advantage to grasp the disk with any forceps to steady it, though in some cases of closely-resisting vaginal orifice, where the distance of the os uteri from the perineal commissure is much greater than the length of the stem, it becomes a necessity. It should then be grasped by some slender forceps giving a firm hold upon the disk, but occupying as little room as possible in the vaginal opening. As a rule, the easiest method of introduction of the stem is by the unaided fingers, and with a little practice one becomes quite expert at introducing the stem into a canal of any ordinary condition of flexion or tortuousness. The first step is to find the os uteri and pass the point of the stem into it directly until it reaches the point of flexion. If the os be near enough to do this before the disk enters the vaginal opening, it is a very easy thing; if not, the whole stem, disk and all, should be passed into the vagina, and by means of the first two fingers, gradually brought into position for the end to enter the os. It should be grasped between the inner surfaces of the fingers, and, after reaching the point of flexion, the axis of the stem should be changed in its direction, carrying the cervix with it until it corresponds with the axis of the canal, when it will, in most cases, readily slip up beyond this point into the uterine cavity, until its course is arrested by the disk resting against the point of the cervix. In a retroflexion this is usually very easy, because the disk can easily be lifted high enough against the vesico-vaginal septum to allow the point of the stem to be directed into the canal beyond the point of flexion; but in cases of ante flexion it is sometimes more difficult. In either case it will be found to facilitate the insertion to make a leverage upon the stem by a counter-pressure of one finger upon the disk while the other is used to make traction upon the stem, or the reverse. In retroflexion the disk would be drawn towards the vaginal roof by the second finger, while the index presses the stem downward towards the line of axis of the canal; in ante flexion the index pushes the disk towards the posterior cul-de-sac, while the second finger

draws the stem forward, thus slightly counteracting the flexion and letting the point of the stem slide or creep, as it were, along the anterior wall until it slips into place. This is often aided by a pressure with the other hand upon the fundus resting behind the pubis, carrying it more toward the centre of the brim and acting in opposition to the traction forward of the stem in the vagina, tending thus very materially to straighten the canal and facilitate the passage of the stem.

The question next arises, How is the stem to be kept in position? And it is in reply to this question that we have so many of the devices which have by their pernicious influence brought the stem into disrepute. Courty and Schroeder retain it in position by vaginal tampons; Tilt, by a boxwood vaginal disk; Chambers and Bantock, by their diverging springs; Tait, by his soft-rubber projecting spikes; and others, by vaginal or external attachments. In reality, there is no difficulty whatever in keeping the stem in place: it is the least of all troubles connected with its use. For whatever purpose it may be used, the natural relation of the uterus to the pelvic canal should be insured, which is with the long axis of the uterus corresponding as nearly as possible with the axis of the superior strait of the pelvis, the os uteri looking backward towards the sacral excavation. It will readily be seen that so long as this relation is preserved the stem cannot possibly slip out, because the proximity of the os uteri to the posterior vaginal wall is so maintained that the stem, which then looks upward and forward towards the pubic brim, cannot slip out of the uterine canal any appreciable distance without the disk striking against the vaginal wall; and if the falling out of the stem has been the result of a sudden lifting of the uterus towards the pelvic brim,—which alone can cause it,—the return of the uterus to its position will make the stem again enter the canal by pressure of the disk against the vaginal wall; and never would it be possible for the stem to slide so far from the canal into the vagina as to get its upper end below the point of flexion and be unable to return. So, then, when the cervix is in its normal position in relation to the pelvic axis the stem cannot get away. Thus it will be seen

that in a case of flexion with anteversion or simple descent, the stem, after introduction, is firmly and surely retained, there being no disposition of the cervix to turn forward. In flexion with retroversion, until the version is corrected, the os uteri presents towards the vulvar opening, the uterine axis being in correspondence with the axis of the vagina, and there is then nothing to prevent the stem from sliding out into the vagina and being lost. But, as this is a condition which should never remain uncorrected in any patient under treatment, the retroversion always requiring reposition, so soon as this restoration is made and the cervix carried backward the stem is again safely secure. This is done by the introduction of the lever-pessary, which, passing into the posterior cul-de-sac, draws the cervix backward, restores the body of the uterus to its normal relation to the pelvic axis, and thus insures the retention of the stem, by means not used for that purpose, but for the relief of a condition quite independently necessary. Here comes into play a most valuable function of the stem, which probably all gynecologists who use it have discovered, but which has been authoritatively suggested first by Schroeder, viz., that of a repositor more efficient and vastly safer than any of the instruments ordinarily in use. The stem converts the retroflexion into a retroversion, to correct which it is only necessary to press the disk gently backward with the finger towards the sacrum, and the uterus revolves upon its horizontal axis, the fundus passing upward and forward to its proper position. Schroeder recommends the instrument for this purpose even in cases where there is no flexion, and where the stem is removed so soon as the version is corrected, using it simply for its safety as an elevator. But unfortunately we sometimes meet with cases in which we cannot maintain the restored position of the retroverted uterus by the lever-pessary, because either from congenital anomaly, or from traumatic causes, or from gradual adaptation of the tissues to the abnormal position, the posterior cul-de-sac is obliterated and the posterior wall of the cervix is almost or quite continuous with the vaginal wall. There is therefore no resting place for the posterior bar of the lever-pessary. Here, then, comes in the ingenious little con-

trivance of Dr. Chadwick, which accomplishes the same results by substituting for the backward traction of the lever-bar upon the cervix in the cul-de-sac a backward pressure of the stem upon the cervical wall within its cavity, the pressure being made by the soft ring fitting closely into the wire hook below the disk of the stem, the ring being large enough to prevent the cervix from coming forward, and yet small enough to allow a free motion in the pelvic cavity. I have had with this instrument some excellent results in cases where everything else failed. Its great objection is the tendency of the stem, by constant pressure against the cervical wall posteriorly, to make a cleft in the tissues and gradually imbed itself; but I had one patient who actually wore one of these instruments for over eleven months, to her great relief, before I found sufficient need, after repeated examination, to remove it. During this time she came to my office frequently to consult me and have examinations made, and was able to perform all of her domestic duties, as well as to enjoy social pleasures. After I removed the stem I introduced a simple ring, the lever being inapplicable on account of the conditions mentioned above; and now, nearly two years since, the flexion has never returned, and she is quite comfortable. Usually, however, I have not been able to keep in place this form of stem-pessary nearly so long.

I come now to consider the range of usefulness of the intra-uterine stem. In reference to the purposes for which it is available, its modes of action may be divided into mechanical and dynamical. Under the first head may be ranged all its applications for restoring deviations or malpositions of the uterus, which will be almost exclusively those complicated with flexions. Inasmuch as anteversions are much more frequently found as uncomplicated with other change of relation than retroflexions, which are usually associated with version, and as they are, moreover, less amenable to other treatment than any other form of deviation, it is in this form of deviation that we are most frequently required to resort to the use of the stem, and it is in these cases that I have seen such admirable results. They present most frequently, though by no means exclusively, in nulliparous women,

and are attended usually with vesical irritability and dysmenorrhœa; and if the married woman was the subject of such a condition before marriage, she will most probably, though not necessarily, be sterile. Time does not allow me, nor would it add to the interest of the subject, to go into the details of the cases treated; but I will simply say that I have seen all of these conditions relieved by the stem, and in a majority of those thus relieved the benefit has been permanent, the flexion not again returning. The cases in which sterility has been obviated by the wearing of a stem for a few months, pregnancy occurring shortly after its removal, have been among the most satisfactory results. That pregnancy is not prevented by the presence of the stem is well established. The relief to the bladder from pressure of a markedly ante-flexed uterus by the stem when, upon examination, a tumour is found in the anterior cul-de-sac, at first giving the impression of a fibroid pressing upon the bladder, but, upon the straightening out of the uterus with the stem, disappearing entirely, is also one of the decided boons from the use of this instrument.

In retroflexion, which is much less frequent than ante-flexion, and usually less marked, we very seldom require the stem, because the condition yields to the influence of the lever-pessary in elevating the fundus and removing the backward pressure; but there is a class of cases of retroflexion in which we get most signal results. These are the cases in which the flexion assumes the marked retort shape, where we find the fundus of the uterus bent backward at such an angle that it is found as a well-recognized tumour in the posterior cul-de-sac. After satisfying one's self that it is the fundus of a retroflexed uterus, a lever pessary is introduced to raise it, which at first promises good results, but only to bring disappointment time after time; the fundus and body of the uterus,—which while the finger of the operator is kept upon the front bar of the pessary remain in natural position apparently, the cervix turning backward in its normal relation,—so soon as the finger is removed, begin to creep over the posterior bar of the pessary, until the latter rests not against the body of the womb, above the cul-de-sac, carrying it upward, but in the angle

of the flexion, the neck in the front and the fundus behind grasping it between them and pushing its anterior bar forward against the pubis, or perhaps extruding it entirely beneath the pubic arch. The lever in this case does no good, but, on the contrary, aggravates the mischief. Here, then, comes in the stem to perform an admirable function: it straightens out the whole uterine canal, takes away completely the apparent retro-uterine tumour, and the lever-pessary, now introduced behind the cervix, acts upon a normally-shaped uterus, and is enabled to perform its whole duty as an elevator with permanent relief. Many, many cases of this kind have fallen under my care in my own practice and in the practice of friends, baffled and discouraged by repeated disappointments, where the use of the stem for a few months seemed to bring about a permanent restoration of the normal uterine axis, which upon its removal showed no tendency to be again deflected, the lever having no further interference with its successful working.

There is met with not unfrequently, in the unmarried and in the sterile, a peculiar flexed uterus, presenting a soft, flaccid, slender, elongated body,—so soft and flabby that it is scarcely appreciable to the most careful bimanual or rectal touch, and one for a moment believes that he has a rudimentary uterus or a cervix without a body; and not till after the sound has with difficulty been made to reach the fundus, and can be felt through the abdomen, is he convinced that there is a uterine cavity at all; and he then feels the uterine body, into which the sound enters perhaps three or three and a half inches, like a long, slender cylinder, no thicker than the thumb. In such cases I have seen the intra-uterine stem strengthening and stiffening up the uterus, giving a basis for the lever to act upon, and between them, in a comparatively short time, the uterine walls became more condensed and appreciable to the touch, and the organ shortened and widened into a normally-shaped uterus.

The dynamic powers of the stem are exerted in its stimulant effect in two morbid conditions, viz., amenorrhœa and uterine hypertrophy, whether the result of hyperplastic increase or defective involution after pregnancy. In the

first of these conditions it was that Sir James Y. Simpson brought forward to the notice of the profession his metallic stem, the results of which were due more probably to its presence as a foreign body in the uterus than to any supposed galvanic influence. In the second condition, viz., uterine hypertrophy, I have had some very remarkable results: uteri enlarged from parenchymatous metritis, and subinvolved uteri, taking on atrophic change promptly after the insertion of the stem, and a stem which was far from reaching the fundus at first requiring to be exchanged for smaller and smaller sizes, until the uterus reached its normal dimensions.

That the stem is an instrument capable of great mischief if recklessly used I am not only free to admit, but would earnestly impress upon every member of this Society. But of what active remedial agent cannot almost as much be said? That it may light up a fire which will run wild through the pelvis, perhaps ending in suppurative cellulitis, perimetritis, and even death, is true; but the uterine sound has done the same in careful hands,—how much oftener in careless hands than the stem we cannot say. I would lay down rules of caution, from which I never depart except in rare and well-appreciated cases:

Never neglect to measure the uterine cavity; never use any force in introducing the stem; never use it when complete mobility of the uterus is prevented by old adhesions or irremovable pressure of surrounding organs; never use it where the flexion of the uterus cannot be easily corrected by the sound or other instrument previously passed into the cavity. Avoid it where there has been any history of previous peritonitis, parametritis, or pelvic inflammation of any sort; or where any induration of tissue can be detected; or where there could be the faintest suspicion of malignant degeneration; or where there is any symptom of acute parenchymatous metritis; or where its introduction gives rise to any violent or persistent pain. Keep the patient absolutely quiet for twenty-four hours, and watch from time to time until the tolerance is fully established. Use hot-water injections daily during its use, and remove it on the least evidence of its having a pernicious effect.

With these restrictions, I regard the intra-uterine stem as a safe and reliable instrument.

In opening the discussion, Dr. W. H. Parrish said that one point in the paper that had especially attracted his attention was the frequency of cases which the lecturer encountered where the stem-pessary could be allowed to remain. His own observation had been that very few patients can bear the presence of the stem-pessary without ill consequences. This instrument would seem to be of special use in simple flexion of moderate degree; but such cases are just as well without treatment. The patients that more urgently need relief are those who have metritis or parametritis, and, of course, it is just in such cases that the use of the stem-pessary would be contra-indicated. The particular form of stem-pessary recommended is, perhaps, the best, and one that the speaker himself would prefer to use, and had used, but he had generally found that it caused so much irritation that he was speedily obliged to remove it. He agreed with Lawson Tait in the opinion that there are a very few cases which can be treated in no other way than by the intra-uterine stem-pessary, and to these he would limit its application.

Dr. H. Lennox Hodge said that he had been particularly struck with the care which the lecturer urged to be employed in the use of the stem-pessary. The mere fact that it might do harm under careless management would not constitute a legitimate objection to the use of the instrument; he had no opposition to make to any agent, provided it is shown that it can be skilfully used with entire safety. But there are other objections to the intra-uterine stem-pessary. In the dissecting-room at the University of Pennsylvania he had endeavoured to introduce the instrument in several cases of marked flexion of the uterus after death, and found it to be impossible: he believed that in these patients even the most skilful operator would have failed to introduce it during life. One of the chief objections is that this hard instrument is intended to be allowed to remain in the interior of so delicate an organ as the uterus; indeed, its introduction has been followed by great harm, and even by death. This is allowed even by its advocates. They say that it should be used only in extreme cases;

and the speaker was pleased with the caution that the lecturer had impressed upon his hearers when speaking of this point. The recommendation expressed was particularly in regard to flexions; but there is great diversity of opinion among gynæcologists as to the methods to be adopted. The opinion of the speaker's father, and of Dr. Emmet and others, is that flexions are not always followed by important results; there may be even a considerable degree of flexion without much discomfort. The trouble is that there is always present more or less uterine congestion, as was pointed out by the late Dr. H. L. Hodge. Flexion becomes of more importance when complicated with version; but these are just the cases which the lever-pessary is especially designed to meet. Take a case of flexion and retroversion: place the woman in Sims' position; replace the uterus either with the finger or the sound or the finger and the sound; lift the perineum; allow the air to enter and distend the vagina, and the fundus uteri recedes into the abdominal cavity. Now introduce a lever-pessary, and the womb does not again come down. He wished to make this point. As regards flexions, many of us find we can relieve them without the use of the intra-uterine stem: therefore, why use an instrument which may be followed by dangerous results? Again, in retroflexion, why use the stem-pessary, when the condition can be reduced by a simple manœuvre and prevented from returning by a lever-pessary?

The lecturer had also spoken of the successful treatment of a hypertrophied and flabby uterus by the stem and the daily use of hot-water injections, but the speaker had obtained the same benefit from the hot-water injections without the pessary. As regards amenorrhœa, he believed that constitutional measures will often succeed, and a small flow is not increased by any means at our command. The stem must act as a local agent, and it is this consideration which stimulated Simpson to devise his intra-uterine stem, made up of two metals, as already described. If the courses are scanty in an ordinary case, the speaker would not recommend an intra-uterine stem; but if he finds that the case does not yield to ordinary treatment, he does not hesitate to use it.

Dr. O'Hara said that the instrument evidently was capable of causing considerable irritation, and even worse, and believed that the indications for its use should be very strictly defined.

Dr. MacFerran called attention to the fact that the problem is not simply to reduce a flexion of the uterus, but requires us to search for the cause of the original deviation, and, if still existing, to remove or counteract it. He believed that the tendency was to pay too great attention to the uterus, which in itself is a delicate organ, and to overlook or ignore the original causes of the condition.

Dr. W. H. Taylor said that the incautious introduction of a stem-pessary might produce an abortion; and he inquired whether it might not effectually prevent conception if worn continuously.

Dr. W. R. D. Blackwood had used the intra-uterine stem in two cases of retroflexion, and permanent relief followed. In regard to the fear of producing an abortion, of course the same precautions should be taken before introducing the stem into the cervix as in the case of the uterine sound; and this objection is disposed of by the fact that the sound is invariably used first.

Dr. Baldwin inquired whether any cases of conception had occurred while wearing the instrument in the practice of the lecturer.

Dr. A. H. Smith replied that he had no personal knowledge of such a case, although two cases of conception occurring during the presence of the intra-uterine stem had been reported to him by Dr. Goodell, one of the cases carrying the child to full term, the pessary having been early removed as soon as pregnancy had been suspected.

He agreed with the gentlemen who had spoken previously, that the intra-uterine stem required caution and should not be indiscriminately employed, the rule being that this expedient should not be adopted when any simpler treatment would answer. Following the same rule, he would not even introduce a vaginal pessary when it was not necessary.

In reply to Dr. Hodge, he said that he made it an invariable rule previously to introduce the sound, in order to measure the depth of the uterus, and where the sound can go the stem

may follow. This would dispose of those cases mentioned where it was impossible to introduce the stem after death. He (Dr. Smith) would lay down the rule that the instrument should not be used in any case where the uterine canal could not be straightened by the sound. The methods of using the intra-uterine stem and the cautions about its introduction are very fully stated in the paper. The speaker was happy to respond to the remarks of Dr. Hodge in reference to the influence of posture upon a retroverted uterus, and agreed with him to the extent that as long as the patient remains in the posture on the knees and elbows the uterus will not come down; but that it will stay there, as many suppose, is not necessarily the case. If we introduce a lever-pessary in that position, when the fundus of the uterus is in the neighbourhood of the umbilicus, it will be found that an instrument that is readily introduced and performs its functions perfectly while in that position cannot be tolerated for a moment when the patient resumes the upright posture, when the weight of the viscera bears down upon it. The fundus of the uterus will often be found to creep down behind over the posterior bar of the pessary, while the anterior bar of the lever will be carried up over the pubes. He had seen this occur time after time. In such patients he has had to temporize and use other measures to reduce the size of the uterus before allowing them to walk.

He would acknowledge freely that some of these cases do not bear the intra-uterine stem; but he considered them as exceptions. As the rule, the irritability is not so great in these old cases, in which the uterus has assumed a version or retroversion, as in ordinary cases of flexion. As to the amount of this tolerance, we cannot formulate a rule; it is greater in some than in others; but there are very few cases in which this flexible stem, if the uterus bears its introduction, could not remain for a considerable length of time, as it occupies no considerable space. He had rarely met with a case in which it would not pass readily into the canal. When irritation occurs, it is never in the cervical canal, but always in the uterine cavity proper; he had, therefore, never found it necessary to adopt the recommendation of Lawson Tait, to cauterize the cervical canal prior to introducing

the stem. The amount of irritation caused by this hard-rubber instrument must be very slight, and he was at a loss to understand Dr. Emmet's opposition, which had been spoken of; but it is very evident, from what he says in his writings, that he has never used it, and, therefore, cannot scarcely give a fair estimate of its value. Dr. Emmet says that you might as well expect to straighten out a chordee with a steel sound as to treat a flexed uterus with the intra-uterine stem; but there is no parallelism between the two; one is temporary, the other is permanent and organic.

The question has been raised as to the permanency of the result. The clinical history of cases was purposely omitted from the paper on account of its length, but he could state, from his own experience, that in the majority of cases the canal continues straight. In many cases pregnancy has occurred after removal of the stem. He was unable to see any force in Dr. Taylor's objection, since the sound would always be introduced prior to the stem, and no attentive practitioner would explore the cavity of the womb without first satisfying himself of the non-existence of pregnancy; and there are so many other methods of producing abortion that this would scarcely be resorted to.

In regard to mortality, he had not seen any case where death had resulted directly from this instrument; but he had seen one case where perimetritis existed, but he believed that the stem had nothing to do with the result, as he afterwards discovered that all the symptoms—fever, etc.—had existed prior to the introduction of the pessary. He had in some cases been called upon to remove the instrument, but, as he had already stated, he only recommended its use where every other means has failed, and under the cautions specified in his paper.

In regard to conception during the retention of the pessary, he could not positively say that it has ever occurred, but he has now a patient who has missed one period. In such cases the pessary is removed, as it would inevitably produce abortion. Dr. Goodell has reported a case where a Chambers' double stem-pessary was used and removed at the end of the second month; the patient, however, aborted a month later. He believed that Dr. Harlow had mentioned two cases where pregnancy had occurred. For his own part, he did not see why conception should not occur. The stem occupies so little space, and is so flexible, that it would favour rather than prevent the spermatic fluid from entering the uterus.—*Philadelphia Medical Times.*

Translations.

A CASE OF SYMMETRICAL GANGRENE OF THE UPPER EXTREMITIES.

BY DR. CZARDA, OF MALASSORO, CELEBES,
EAST INDIES.

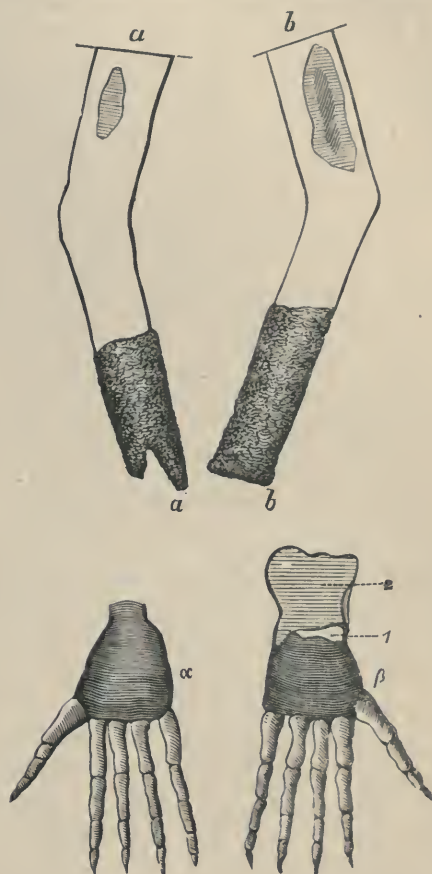
(Translated by Dr. A. A. RIDDEL, of Toronto.)

We translate the following from the *Wiener Medizinische Wochenschrift* of the 5th June last, such cases being exceedingly rare in young people. The suspicions of the medical chief as to the true origin of the gangrene, it seems to us, may not have been entirely groundless, notwithstanding the statement of the mother and child and the evidence of other witnesses. That a spider should first bite the child on the upper part of one arm, and then deliberately pass over to the other and bite it in a corresponding point, seems altogether improbable. The witnesses who supported the statements of the mother and girl may have given the truth as far as they knew; for they may not have seen the patient till some time after the beginning of the trouble, perhaps not till after the falling off of the hands; and then, having heard the account of the parent and girl, may have taken it for granted that it was true. The sketches of the hands and arms given in the *Wochenschrift* to elucidate the history are not as well executed as we could have desired. But as they may tend to enable one to form a more correct view as to the real nature of this singular case, we have had the plates specially engraved for this Journal.

"On the 18th of March, 1879, a child was brought to the Military Hospital at Macassar, in which I was the attending physician, who had lost both hands in the neighbourhood of the wrists. The child, a Macassar girl of about twelve years of age, was found by the garrison doctor, who was also town physician, in a miserable bamboo hut, in such a very neglected condition that the assistance of the police was required to remove her to the hospital. Her name is Remba, that of the mother Jenang, and the father's Radang. The father is a fisherman, and for months together he is away from home; so that the care of the children, of whom there are several, is left entirely to the mother, who in poverty and misery their lives prolongs.

"The child is greatly emaciated, and covered with filth. The stumps of the fore-arms are surrounded with dry cow-dung. After she had been washed, the crusts of dung were carefully removed, and then were seen the most beautiful (*die schönsten*) granulations, which extended ten centimetres ($3\frac{7}{8}$ inches) upwards

on the right stump, and thirteen (five inches) on the left. The right, *a*, is unequal at the end, which forms two prong-like prominences of about three centimetres in length.



The left, *b*, is, on the contrary, even at the end, which is slightly thicker than the remaining portion. On the right upper arm is to be seen, five centimetres long and two centimetres broad, a pale-red spot, free of pigment (the child has a dark skin), which has a superficial scar. On the left upper arm there is a similar pale-red scar, slightly coloured in the middle, 17 centimetres long and four wide. Besides these, there is a similarly-conditioned scar on the right buttock. Both arms are somewhat bowed, and cannot be completely straightened.

"The mother and child, upon being questioned as to the cause of this condition, stated as follows: Some time ago, but how long neither could say (as the natives, from the ever-greenness of nature and their monotonous manner of living, can form no conception of time), the child was bitten in both upper arms by a large spider while asleep, exactly in the places where the slight scars are now to be seen. Both arms swelled to an enormous size, and the

child lay with a severe fever and terrible pain for many weeks, without being able to move herself on her mat. At length the hands became dark-blue and cold, and ultimately rotten, occasioning such a foul odour that no one except the mother could remain in the house, and she alone continued in attendance. The hands were changed to a dark, stinking, pulpy substance, out of which large worms crawled. Upon the child making a movement with the hands, the right one fell off, whereupon it was wrapped up by the mother and buried in the yard.

"The mother then firmly applied on the left fore-arm, above the blue part, a bandage of the inside bark of a kind of banana tree, in order that, as she said, the disease should creep no further. A few days later the left hand dropped off at the wrist, and was also buried.

"With this strange account of the spider-bites and falling off of the hands, the then chief of the Military Hospital was not satisfied, particularly as it not infrequently occurs in the Indian Archipelago that malefactors, as a punishment, have both hands chopped off; and therefore a judicial investigation took place. The following day a policeman, at the request of the hospital chief, brought the fallen off and buried hands, which were taken possession of by me and more closely examined.

"Both hands were wrapped in rush matting and cotton. After these were removed, I could take a closer view of the putrified contents. The soft portion of the right hand, α , was completely destroyed; the carpal, metacarpal, and finger-bones, and the nails were present, and were only, by a tenacious, dark, pulpy material, in which still a few tendons could be seen, held together. The bones of the left hand, β , especially the carpal and metacarpal, were, on the contrary, in the tolerably well-preserved connecting soft parts imbedded. Not a bone or nail was wanting: even the epiphysis of the radius, γ , was present. On the dorsum a piece of skin, δ , was almost intact, being perforated in only two places; and this piece of skin lay in a free, five-centimetre-long patch, whose end, somewhat torn, nevertheless terminated in an almost right line. In this place, as the mother afterwards declared, the binding had been performed.

"The examination of witnesses, as well as the long-continued investigation, could supply no further information. All the statements of witnesses agreed with the account given by the mother and child: namely, that the hands, in consequence of a disease, had fallen off.

"Two months have elapsed since I last saw the child, and therefore I cannot say how far the cure has progressed.

"The Indian physicians are not yet agreed as

to whether the injuries were caused by wounds or disease; and therefore I give this interesting case publicity."

PERITONISM.

If we pass from the biliary lithiasis to other abdominal affections, we will find other problems quite as interesting.

Who has not often demanded, in presence of a mortal peritonitis, why and how one died of a peritonitis? Assuredly it is not by a direct effect of the inflammation of the peritoneum, and of the immediate functional troubles that result from it. But underneath the peritoneum there are nervous filaments which emanate from the solar plexus. When the membrane is inflamed, the nerves are disturbed if they are not also inflamed, and this disturbance follows an ascending course, from the filaments reaching the branches, and from the branches the trunks: the system of the great sympathetic receives a shock, and this shock overturns the organism. Thus the nervous troubles dominate over the morbid scene: super-excitation of the apparatus of sensibility; revolt of the motor apparatus, arrest of the peristaltic movements, from whence tympanites of the belly and constipation; development of the anti-peristaltic movements, from whence bilious vomitings; participation of the vaso-motor apparatus in its whole extent in the morbid movement, whence chill, coldness of the extremities, retreat of the ocular globes, hindrance of respiration, accumulation of blood in the venous system, diminution of the arterial waves cast from the heart, drying up of the secretions, etc. Such is the very faithful *tableau d'ensemble* which M. Fabre traces of the peritonitic state, in which we see almost wholly nervous phenomena. It is clear that it is not the condition of the peritoneum itself which causes the disease, but really the great sympathetic, incited by the abundant nervous plexus which it sends into the mesentery.

Thus is found theoretically and logically justified the empiric use of opiates that almost all of the great practitioners have recommended against peritonism.

By the side of peritonism is placed the choleric state, or algidity, analogous by the predominance of nervous perturbation, but differing in that the sensitive system is there less attacked and the alteration of the vaso-motor system more profound, whence the symptomatic differences which follow: absence of abdominal pain, more or less abundant gastro-intestinal evacuations.

This algidity presents itself with a character more general than peritonism: it is in some sort the common expression of grave abdominal affections reacting on the nervous system. We

have seen above an example of it in the biliary lithiasis. It is one of the characters of epidemic cholera, and we frequently find it in the choleric form enteritis of young infants. In this condition we cannot mistake the considerable rôle of the nervous system.—*Gaz. des Hôp.*

THE CANADIAN
Journal of Medical Science,

A Monthly Journal of British and Foreign Medical
Science, Criticism, and News.

TORONTO, SEPTEMBER, 1880.

EXTRACT OF MALT.

Probably no preparations recently introduced have attracted more attention or received a more thorough trial than the various preparations of malt. Properly prepared malt, rich in diastase, possesses in a high degree the faculty of digesting starch. It should be given with the food, not afterwards, and may be mixed with almost any non-alcoholic fluid, or with some farinaceous dish, care being taken that the temperature is not too high. We have used, with gratifying success, both with private patients and in the Hospital for Sick Children in this city, the preparations of the Trommer Extract of Malt Co., of Fremont, Ohio, and chiefly the combination with cod-liver oil. In cases of struma it is frequently found that the weakened stomach will not tolerate that great holdfast, cod-liver oil. In such cases we have found no better substitute than the plain malt extract.

In ordinary cases of atonic dyspepsia, we have found it a useful adjunct to other remedies. An excellent tonic food digester, too, in these cases, is the combination of extract of malt with citrate of iron and quinine. For a clear and learned exposition of the mode of action of the various digestive ferments, we need only refer our readers to Dr. Roberts' article in our February and March issues; he there shows how the extract of malt changes starch into sugar, and thus acts as a substitute to the natural diastase of the fluids of the body when that is deficient or wanting.

In the convalescence from exhausting diseases, where often the stomach remains debili-

tated, malt extract mixed with the food gives it the needful help, and by allowing it rest, and at the same time helping to supply its walls with suitable nourishment, enables it to recover its former powers. Many of the leading physicians of the States and Canada testify to the excellent qualities of Trommer's preparations; and Ziemssen, in his well-known voluminous Cyclopædia, speaks in terms of the highest praise of Trommer's receipt.

Besides the combinations mentioned above, which are those with which we are best acquainted, there are those with hops, pyrophosphate of iron, cod-liver oil and iodide of iron, cod-liver oil and phosphorus, hypophosphites, iodides, alteratives and pepsin, all of which serve a useful purpose when administered according to indication.

FERDINAND VON HEBRA.

We learn from the *Wiener Mediz. Wochenschrift* of the 7th August, that this celebrated Professor of Dermatology died early on the morning of the 5th. He was within a month of being 64 years of age. In a short notice of his death, printed in large type, surrounded by a deep-mourning border, and occupying the entire first page of the *Wochenschrift*, the editor expresses, in affectionate language, the sorrow of the profession the world over at the demise of this talented and noble man, whose decease is a loss, not to medicine alone, but to humanity itself. Owing to the *Wochenschrift* not having reached us till we were about going to press, we can give but a few short extracts of its *In Memoriam*. The notice begins with the truly pathetic German words, "FERDINAND HEBRA ist nicht mehr!" (Ferdinand Hebra is no more,) which are repeated several times in the course of the article.

"Ferdinand Hebra is no more! At an early hour on Thursday morning death relieved him, after a month's painful suffering; and thus ended a man who lived for all times. * * * Still, his name lives. Surrounded by the golden crown of immortality, Ferdinand Hebra will live to the most distant ages: will live in the remembrance of his works and his labours. * * * The Science whose father he was, and posterity for all time, will mention him with the highest veneration which mankind feel for the great ones of their race. Ferdinand Hebra has departed, but he is not dead."

The following communication explains itself :

To the Editor of the Canadian Journal of Medical Science,
Toronto, Ont., D.C.

NEW YORK, 41 West 20th Street,
July 31st, 1880.

DEAR SIR,—Having been selected by the Paris Committee (Messrs. Ranvier and Dumont-pallier) having charge of the subscription for a monument or memorial to the late Prof. Claude Bernard, to represent them in the United States,—I beg leave to be allowed to use your columns for the purpose of appealing to the members of the medical profession, and all others interested, to subscribe to this worthy project.

I need hardly remind your readers of the great debt which every practising physician owes to the labours of the illustrious physiologist whose memory we are asked to honour in this way.

All inquiries and subscriptions, in the shape of bank checks or postal money orders, should be addressed to me.

Trusting that I shall have the advantage of your active personal support in this matter, I remain, yours, very respectfully,

E. C. SEGUIN, M.D.

JOURNALISTIC.—Among the new aspirants to fame are the "Monthly Index to Current Periodical Literature, Proceedings of Learned Societies, and Government Publications." One dollar a year. Address 10 Spruce Street, New York. It is useful for reference.

The *International Surgical Record*, a weekly journal published in New York. Price five dollars per annum. Achilles Rose, M.D., is the editor. Address No. 1 Chambers Street, or P. O. Box 1497. It is purely surgical in character, and promises complete translations of foreign medical literature.

Book Notices.

Diabetic Cataract, Iritis, &c. By C. J. LUNDY, M.D.

Sympathetic Affections of the Eye. By C. J. LUNDY, M.D.

Michigan College of Medicine, Detroit. Annual Announcement for Session of 1880-81.

On Peptonized Milk as a Dietetic Food for Infants and Invalids. By R. J. LARUE, M.D.

How Vivisection Concerns Every Citizen. By LEWIS S. PILCHER, M.D.

L'Apomorfina Azione ed usi del Dott. C. Ruata. Padova: Tipografia del Seminario, 1880.

The Therapeutic Value of the Iodide of Ethyl. By ROBERT M. LAWRENCE, M.D., Boston.

Sixth Annual Announcement of the Medical Department, University of Tennessee. Nashville Medical College, Session of 1880-81.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland: 82nd Annual Session, held at Baltimore, April, 1880.

Report of Select Committee on Public Health. Printed by order of the Legislative Assembly. Toronto: Hunter, Rose & Co., 25 Wellington Street.

Questions Submitted to the Graduating Classes of the Medical College of Ohio, from 1871-'72, to the Present Time. Cincinnati: C. R. Murry, 103 West Sixth Street.

A Paper on the Anaesthetic Use of Bromide of Ethyl. By W. H. HINGSTON, M.D., L.R.C.S.E., D.C.L., Surgeon to the Hôtel Dieu Hospital, Montreal.

Quarterly Report of the Kansas State Board of Agriculture, for the Quarter ending June 30, 1880, containing statistics relative to population, acreage of important crops, railroads, public lands, condition of crops, farm animals, meteorological data, etc., together with papers on summer and fall treatment of orchards and vineyards, and the growing of sorghum cane. By J. K. HUDSON, Secretary, Topeka, Kansas. Topeka: Geo. W. Martin, Kansas Publishing House, 1880.

Lucie Rodey: A Novel. By HENRY GREVILLE, Author of "Saveli's Expiation," "Philomene's Marriages," "Dournof," "A Friend," "Marrying off a Daughter," "Dosia," "Pretty Little Countess Sina," "Sonia," "Markof," "Bonne-Marie," "Gabrielle." Translated from the French by Mary Neal Sherwood. Philadelphia: T. B. Peterson & Brothers, 306 Chestnut Street.

Edmond About has just written a novel to prove the existence of domestic virtues in France. Americans, who, as a rule, know little

of France outside of Paris, are apt to deny the possibility of such. Let them, therefore, read "Lucie Rodey," Madame Greville's last romance, in which they will find the wife and mother "faithful unto death," though exposed to trials and temptations. "Lucie Rodey" teaches a great lesson, which will be felt even by those who read it with breathless interest merely for the sake of the story.

Oral Deformities. By N. W. KINGSLEY, M.D.S., D.D.S. New York: D. Appleton & Co.

Although this book will find its most natural place among the works of dental literature, yet beyond illustrating the many different mechanical means which may be employed for the purpose of regulating teeth, it further treats upon the ground where the more aspiring dentist and surgeon may be said to meet—i.e., the treatment of deformities of the palate, &c. And upon this subject it is well worth the perusal of the general surgeon, as showing how completely the functions of that organ may be restored, in appropriate cases, by a well-adapted mechanical appliance, apart from any surgical operation. Upon this subject the author seems not only to have devoted a large amount of time and study, but also to have been favoured by an extensive practical experience. The work is illustrated by means of numerous woodcuts, which serve to render the mechanisms employed very easily understood. It also contains a chapter upon the formation of the sounds of the vowels and consonants, whereby it shows the various positions of the organs of speech in producing the correct pronunciation of the elementary sounds of the English language. The author's original manner of investigation will, no doubt, add an important link to the physiology of that subject.

Eleventh Annual Report of the State Board of Health of Massachusetts, for the Six Months ending June 30th, 1879.

A new law has somewhat changed the State Board of Health of Massachusetts, and given the Health Department a sanitary supervision of various public institutions.

The Report before us, coming out for the

half-year only, seems intended to wind up little matters in hand and give a new prospectus, preparatory to a new start, and to give a summary and index of past labours; and very creditable to the Board and the State are these. We augur for the Board great success and increased usefulness in its larger sphere, and wish that our own Provincial Government would take a leaf out of the Massachusetts book. An overhauling of "Noxious and Offensive Trades" and "Polluted Water-courses" might at once begin with our own classic Don, and a result beneficial to all parties (victims and persecutors) follow, as in the case of Massachusetts.

Under the head of "Disinfection," some of the results of the labours of the International Cholera Commission are given. These have proved that our disinfectant modes have been too weak to kill organisms. Chlorine and sulphur fumes must be much stronger than we have generally used them. The latter is preferable, on account of being less destructive to household goods; and 18 oz. of sulphur must be burned up for every 1,000 feet of air space. Towns are recommended to have furnaces for thick and heavy materials (mattresses, &c.) to be heated up to 240° or more. Chloride of zinc (1 of Burnett's solution to 200 of water) is recommended for diurnal soaking of linen, &c.

The plan of "Registration of Prevailing Diseases" is too limited and infrequent to be of much service.

The Board publishes some circulars for general distribution which must do much good, such as those on "Care of Young Children," "House Drainage," &c.

Treatise on Therapeutics. By A. TROUSSEAU and H. PIDOUX. Translated by D. F. LINCOLN, M.D. Ninth Edition. Volume I. New York: Wm. Wood & Co.; Toronto: Willing & Williamson.

This is not a work on materia medica or pharmacy, as many may suppose, but on therapeutics proper—a department of materia medica which is of far more importance and value than all the others put together. Indeed, if lecturers on materia medica would devote more time to a consideration of the therapeutical properties and physiological effects of drugs,

and less to a consideration of the commercial, botanical, chemical, and pharmaceutical histories, they would create a lively interest in the subject, and we should hear less complaints of these classes.

The subject of *materia medica*, which is universally regarded as the most dry and uninteresting of the whole medical curriculum, is capable of being made one of the most interesting as well as most instructive of the whole course, and to no work is the teacher more indebted for assistance in the endeavour to impart that interest to *materia medica* than to Trousseau's *Therapeutics*.

In these days, when all our medicines are so well prepared to our hands by the educated druggist and dealer, who devotes all his energy and time to that business, we can conceive of no greater folly than to make young men spend so much time and strength in the acquisition of knowledge for which they will have no possible use in after years, and we think it would be much more to their profit if they could be allowed to devote the time thus spent to a more thorough preparation in the more practical branches of their profession.

Trousseau's *Therapeutics* is a book that has long been familiar to teachers of *materia medica*, and we are glad that Wm. Wood & Co. have brought it within the reach of every student and practitioner. There is a vast amount of useful matter in it, and many valuable hints and suggestions in regard to the use of certain drugs; indeed, emanating as it does from the very prince of clinical teachers, one would expect to find it a very treasure-house of rare medical facts and suggestions—and so it is.

But while there is very much in it to commend—and we would like to see it read by every one—there is also a good deal that, read in the therapeutic light of to-day, will hardly be accepted as either very useful or very sound. When we look at it, however, as the pioneer of such modern works as Ringer, Napheys, and Fothergill, we must accord its authors a very large meed of praise for industry, originality, and painstaking research; and we thank the publishers, on behalf of the profession, for placing the work in so attractive a form in our hands.

A Practical Handbook of Medical Chemistry, applied to Clinical Research and the Detection of Poisons. By WILLIAM H. GREENE, M.D., Demonstrator of Chemistry in the Medical Department of the University of Pennsylvania, &c., &c. Philadelphia: Henry C. Lea's & Co; Toronto: Hart & Rawlinson. 1880.

This is a small but very complete work on the application of chemistry to medicine, physiology, and toxicology. It is partly founded on Bowman's work, the later edition of which was edited by Bloxam, but is much more complete in many respects, and contains the description of many new substances, tests, and processes which were not contained in the older work. Unless in exceptional cases, it does not seem to be well fitted for medical men, who have seldom the time or means to devote themselves to the accurate processes therein described; but will be found very useful to chemists who occupy themselves with the applications above mentioned, as it contains a mass of information which could be obtained only by reference to a large number of works.

The book is illustrated by numerous plates of various substances, many of which delineations are old friends, taken from Bowman and others. The writer, from long experience, can testify to their great accuracy.

The first part of the work treats of the proximate principles taking part in the animal economy, and appears to be very complete. The second part treats of the analysis of secretions, excretions, &c., such as urine, calculi, pus, saliva, bile, milk, blood, and blood-stains. We think the guaiacum test for blood-stains is more reliable than the author seems to believe, but we would apply it in a different way. The third part treats of the detection of poisons, the chapter on Arsenic being excellent. We confess, however, that we would not recommend Bloxam's electrolytic process as very handy or generally applicable. Moreover, if the quantity of arsenic present has to be determined, one of the other processes must be conjoined with it. The author wisely recommends the method of Fresenius and Babo (amended somewhat by Otto), which allows not only of the detection of the presence of the most minute traces, but also of the determination of the quantity present, which is not the case with that of Reinsch, nor directly

with that of Bloxam. We are of opinion that more attention should have been directed to the processes (for detection) of Fleitman and Davy, the latter of which, when properly executed, is wonderfully delicate. It is very doubtful, as stated by Otto, if there is any advantage in employing a retort instead of an open dish in the first solution of the organic substance—that is, ordinary precautions being taken. It may also be noticed that the very characteristic reaction of potassium iodate upon arsenical spots is altogether omitted.

Under the head of the separation of hydrocyanic or other volatile poisons from viscous mixtures, it might be added that the passage of a current of steam is very efficacious, and avoids the disagreeable accidents which sometimes occur. With regard to phosphorus, too, it may be mentioned that the test corresponding to Fleitman's for arsenic, viz., by caustic potash and silver nitrate paper, is a very excellent one, more especially as it is available in daylight, and forms a good class illustration.

With respect to the detection of alcohol, when but small quantities are present in the distillate, the determination by means of the specific gravity can be relied upon only in very accurate experiments. For very small traces, the iodoform test, *i. e.*, with aqueous solution of iodine and potassium hydrate, seems quite equal to the chromic acid reaction. The odour and crystalline shape of iodoform are strongly characteristic.

Again, there are many poisonous alkaloids omitted, which might, with benefit, have been introduced. But, on the whole, we can most strongly recommend the work as well adapted to the proposed end, as a highly accurate and practical compilation.

MODE OF ADMINISTRATION OF CHLORAL IN SOLUTION.—A number of patients refuse to accept chloral, even when associated with syrup of gooseberries. To cause the painful sensation to disappear, which the passage of this medicine provokes in the back of the mouth, it suffices, says Dr. Lebert, to add to the aforesaid mixture one drop of pure chloroform for each gramme of chloral.—*Le Practicien*.

Miscellaneous.

THE MORALITY OF MEDICINE.—The criminal statistics of Brooklyn for the past year show 25,706 arrests were made by the police. One was a clergyman, one an editor, eight were artists, six actors, two custom-house officers, *forty-seven lawyers* (Jerusalem!), and eleven undertakers; but not a physician was there in the lot.

EFFERVESCENCE OF URINE.—There is another example of effervescence which is, I believe, often misunderstood—that of cold healthy urine when nitric acid which has been exposed to the light is added to it. The brisk effervescence which ensues is frequently attributed to the presence of carbonates, even when the urine is quite recent and faintly acid in reaction. It is, of course, really due to the conversion of the urea into nitrate of ammonia and carbonic acid by the hyponitrous acid present in the test. And the proof is, that no effervescence occurs if strong hydrochloric acid be added to the same urine, nor if perfectly pure colourless nitric acid be used in the same way.—*G. F. Masterman, L.K.Q.C.P., Ixworth.*

STRUCTURE OF THE BLOOD CORPUSCLE.—As microscopic appliances and knowledge increases history repeats itself in the battle now occurring between Heitzman's and Curtis's disciples. Haller, in 1757, in "*Elementa Physiologiæ*," resolved the solid parts of animals and vegetables into the "fibre" and an "organized concrete." The fibre being to the physiologist what the line is to the geometrician, "*Invisibilis estea fibra, solâ mentis acie distinguimus.*" A reaction against the fibre theory took place in 1779, when Prochaska and others, down to the present century, adopted the views of Leeuwenhoek, who in 1687 announced the "globular" structure of the primitive tissues of the body. Huxley, Virchow, Bennett, Todd and Bowman, Beale and others, have finally elaborated the cell doctrine into its present more satisfactory shape; but another Haller, Dr. Heitzman, of New York, proposes to land us a century back by claiming the discovery of a trabecular structure for the cell. Dr. L. Curtis, of this city, repeated

Heitzman's observations, and publishes his views in the *New York Microscopical Journal*, going to show that blood corpuscles have no trabecular or fibrous appearance, but are made up of very minute granules or corpuscles, which Heitzman has mistaken for fibres, just as the old test objects, such as diatoms, and podura scales were at one time supposed to be striated, and are now known to have been so considered, because improperly observed—*Chicago Medical Gazette*.

A CRUCIAL TEST OF HOMŒOPATHIC MEDICINES.—In the *New York Homœopathic Times* for March, 1880, is an account of a series of experiments instituted for the purpose of testing the effects of the thirtieth dilution of tincture of aconite. The project was set on foot in Milwaukee by a homœopathic society and carried out with great care. In the words of the originators, "the object of this test is to determine whether or not this preparation can produce any effect on the human organism, in health or disease." "A vial of pure sugar pellets, moistened with the thirtieth Hahnemannian dilution of aconite, and nine similar vials moistened with pure alcohol, so as to make them resemble the test pellets," were given to the prover, who was not to know which of the ten vials contained the aconite. The vials were numbered from 1 to 10, and the prover was to administer them to individuals, sick or well, and to detect by the effects which of the vials contained the medicine. It was provided that "the provers must be physicians of decided ability, who possess a good knowledge of the recorded symptomatology of aconite, and who have faith in the efficacy of the thirtieth dilution." The project was widely announced, and the ten vial package was sent to each of twenty-five homœopathic physicians applying for them, scattered over a dozen different States. To guard against all possible fraud or trickery, the Rev. Geo. T. Ladd, Professor of Mental and Moral Philosophy in Bowdoin College, Maine, was selected to distribute the vials to applicants and to receive reports from them.

Now, all this was not only decidedly fair, but it was highly creditable to those who ven-

tured on an experiment involving so much peril to a favourite theory. One looks to the result with much interest. The result, so far as it has transpired, appears in the report of Mr. Ladd, which was not made until after the date allowed for the returns from the provers. By his report it appears that only nine of those gentlemen ventured on any answer whatever. Mr. Ladd's report is thus summarized in the general report made to the Milwaukee Academy of Medicine—the body which originated the project—and signed by Samuel Potter, M.D., President, and Eugene F. Storke, M.D., Secretary:—

Number of tests applied for and sent out.	25
Number of tests which have been reported on	6
Number of tests in which the medicated vial was found	0

Be it remembered, that these statements do not come from the opponents of homœopathy, but from its own adherents, and not from a local or partial source, but from a select body representing the more intelligent portion of the sect. We have never met with any evidence more damaging to homœopathy. True, the blow strikes only at the infinitesimal phase of the system, and not at the dogma of *similia similibus*; but it is also true that the head and front of homœopathy is the unphilosophical unscientific and absurd doctrine of potentization, and not the theory implied by its title.

We have observed no notice of this report except in the journal named. It would appear that a general effort has been made to suppress it. In the meeting of the New York State Homœopathic Society, lately held at Albany, the report was refused acceptance. The editor of the *Times* complains of this, saying that common courtesy required its reception, though its adoption might have been refused. We do not wonder, however, at this course. The pill was altogether too bitter for homœopathic stomachs.

Births, Marriages, and Deaths.

MARRIED.

At Berlin, on the 17th day of June, Henry J. Lackner, M.B., of Berlin, to Nellie, eldest daughter of John A. Mackie, Esq., Merchant, Berlin.

THE Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

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R. ZIMMERMAN, M.D., L.R.C.P., London,
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TORONTO, OCTOBER, 1880.

Selections: Medicine.

SOME POINTS IN THE PATHOLOGY OF TUBERCLE.

BY J. M. DA COSTA, M.D.

Read at the Meeting of the Pathological Society of Philadelphia,
April 22, 1880.

In attempting to put together some thoughts on the pathology of tubercle, it will be necessary, however briefly, to refer to the unsettled state of the question in the best medical minds of the day. Immediately following Laennec, nothing could have appeared more firmly fixed than the doctrine he so clearly enunciated. It was impossible to doubt tuberculosis as a specific disease. To have misgivings as to the nature of consumption and its constant association with tubercular destruction was to appear to return to barbaric darkness. Not to separate with clearness the different forms of tubercle was to forfeit all claim to be a pathologist. But we all know what has recently happened. The German iconoclast has been at work. Nobody likes to speak now of tubercular diathesis, of tubercle being a constitutional affection. It is, for the most part, simply the result of a local inflammation; and cheesy matter, infective process from absorption, irritation in structures abounding in lymphatic tissues, are the com- placent phrases of the day, which satisfy most as much now as diathesis, constitutional condition, specific deposit, satisfied most not many years since.

And the local view, if such it may be called, once adopted, has brought with it scores of interesting observations on the inoculation of tubercle; its artificial causation; its production in the lung by inhalation of both tubercular

and non-tubercular substances,—observations which are warmly discussed, criticized, adopted, rejected, explained, explained away, and the uncertainties connected with which, quite apart from the other difficulties of the subject, are the cause mainly of the generally disturbed condition of the whole inquiry.

Underlying these observations, or at least closely connected with them, lies the vital question, What relation does tubercle bear to the inflammation? And it is this question particularly that I desire to examine with you a little more fully to-night, and concerning which I shall venture to offer the result of some researches and reflections.

As a necessary introduction, I shall have to examine the evidence on which we pronounce a mass to be tubercular; in other words, what its minute structure as shown by the microscope is. And, to avoid any confusion at the threshold of our inquiry, let me speak of that which we find in undoubted tubercle,—in the little, hard, mili- ary bodies, which may afterwards become aggre- gated into larger gray masses. In them we encounter three elements:

Medium-sized, rather shrivelled cells, not very regular in outline, consisting of finely-granular, dense material, with a nucleus small in propor- tion to the cells, or with several nuclei of simi- lar character. They were once regarded as significant of tubercle, but are now supposed to be swollen epithelial cells which have undergone retrograde metamorphosis. Mixed up with them are cells less dense and like ordinary epi- thelium, small cells like leucocytes, and a great deal of granular material of doubtful origin.

Giant cells. These consist of large, many- nucleated cells, which are found at rather an

advanced stage of tuberculosis, and are very marked in the acute form. They are of spheroidal shape, and somewhat irregular outline. Great stress has been laid on them as significant of tubercle, but they have been met with in various tissues of the body, in scrofula, in syphilis, and in merely hyperplastic lymph-glands of those perfectly free from tubercle.* As they grow they send out long, branched processes. With Klein, I believe them to be excessively developed or fused epithelial cells.

The structure in which all these cellular elements are found, especially, perhaps, the last described, is a *fine net-work* like the fine trabecular net-work in the interior of lymphatic glands; and this led to the belief entertained until lately by Rindfleisch, that tubercle is a lymphoid growth. But this is not stating the whole of the manner and arrangement of the cells in tubercle. They are found in the lungs filling the alveoli and infiltrating—generally as small round cells—the alveolar walls, and leading to very considerable thickening of the latter.

To sum up, cell-growths by themselves, not peculiar, but representing different grades of development, — some still rapidly growing, others shrivelling and full of dense matter; all capable of being washed out of a fine reticulum, or accumulating in masses both within and in the walls of air-vesicles,—this structure, this grouping, may be regarded as tubercle. Then there are certain secondary alterations that take place in the tubercle formation and the invaded tissue which must also be mentioned, and which bespeak a retrograde change and low vitality. The main of these changes is a degeneration of the cell-growths, an accumulation of granules and fatty material, and an occlusion of the pulmonary capillaries, probably from pressure, and here and there a fibroid transformation of the giant cells.

Now, what causes all this? Some still maintain a specific non-inflammatory deposit; some say an inflammatory process of slight intensity, others a specific inflammation. I pick up a recent journal, and see that malaria is at the bottom of all this cell-growth and rapid decay. I turn to one of this month, and I find in the front of the periodical an article proving that

tubercle has its origin in disorders in the trophic centres, and in the middle pages another, showing that it is an accident, the result of the capillary interference, due to altered condition of the blood from the presence of yeast. It is almost needless to say that the bacteria are made to explain the peculiar formations, for how could these patient little beings that are bearing so quietly being made the scapegoats of the pathologists of the last half of the nineteenth century escape having charged to them this additional sin? I turn with eagerness to discussions of the subject replete with learning in societies similar to ours, and there is little but negation. It is not this, and not that, say men who are known wherever medicine is cultivated; and you begin to doubt if there is such a thing as tubercle at all, until the first clinic-room you go into—and see the familiar face, hear the cough, and recognize the well-known signs—confronts you with the stern reality of the awful disease. With all these doubts and gropings after the truth, I may be pardoned if I hold fast to the belief that the process, whatever it be, is something special, though something of which we do not hold the key.

To return from this digression to one part of the subject around which much of what is positive in our knowledge has clustered, and which is of most obvious applicability,—the relation of these mysterious tubercular formations to inflammation.

Now, we all know how the relation of tubercle to inflammation has engaged the attention of the present generation of pathologists. Yet the consideration of the question long antedated them; and the much-neglected observations of that sagacious thinker, Addison, are really the key-note to many of the views now brought forward under other names. But this is a historical issue, with which we cannot further concern ourselves here. The active discussion of the matter started with the observation of Virchow that the caseous matter previously regarded as infiltrated tubercle might originate from the fatty degeneration of diverse morbid products, and was non-tubercular; indeed, that the gray granulations alone were tubercular and non-inflammatory. Niemeyer expanded this thought, and engrafting on it the doctrine

* Weiss, Virchow's Archiv, lxviii.

of Buhl, of the infection of tubercle, promulgated the view that the lung consolidation and destruction are most commonly inflammatory,—the result of the caseous pneumonia,—and the tubercle, when met with, quite secondary and accidental. Indeed, to carry out Niemeyer's ideas logically, the inflammation is, in the vast majority of instances, everything, the tubercle nothing.

The doctrine of Buhl has been alluded to, that tuberculosis—as seen, for instance, in its most typical form of miliary tubercle—is due to infection from masses of cheesy material. The infection happens chiefly through the lymphatics. This infection theory led to numerous experiments on animals, with the result that inoculation in rabbits and guinea-pigs with fresh miliary tubercle, with cheesy matter, with the sputa from tubercular patients, has been followed by acute miliary tuberculosis. Moreover, going still further, Cohnheim and Fraenkel have shown that it is unnecessary to inoculate with these special matters, for in rabbits and guinea-pigs the formation of any focus of suppurative inflammation may fill the viscera with tubercles. With reference to these experiments, it has been pointed out that the kind of animal on which they are made has much to do with the result. Rabbits and guinea pigs are particularly prone to tuberculosis. Yet, as regards inoculation with tubercular matter, it has also succeeded on other animals, as in the experiments of Böllinger on goats.*

Another group of experiments must be alluded to,—those in which pulverized tubercle and cheesy matter have been forced into the lung by inhalation. These have been followed by tubercular-looking nodules; and so have, as Schottelius† has recently demonstrated, inhalations with non-tubercular substances, such as pulverized calf's brain and cheese, produced apparently identical bodies. They are the result of inflammatory irritation. But, microscopically examined, they do not present the appearances of tubercle.

Summing up all the experimental observations, they seem to me to prove that tubercle

may be transmitted by inoculation either of true tubercular matter or so-called caseous pneumonia; that resorption of tubercle and infection of previously healthy parts is a view sustained by evidence; that the production of tubercle from non-tubercular material, either by inoculation or by inhalation, is not proved. Inflammatory nodules arise, but they have not the structure of tubercular formations.

I shall now attempt to answer the question, what is the exact nature of those inflammatory changes in the lung which give rise to destructive consolidation, supposed to be non-tubercular, yet from which, by infection, tubercle may come. In other words, I shall endeavour to describe the histology of so-called "caseous pneumonia," or pneumonic phthisis. We find within the alveoli an accumulation of large cellular elements, mixed with leucocytes and exudation matter. We observe the alveolar walls thickened and infiltrated with cells, the vessels compressed, accounting for the breaking down of the bloodless masses accumulated in and around the alveoli. We meet with inflammatory infiltration in the walls of the bronchi, and, as Rindfleisch has so well pointed out, around them, as well as with increased connective tissue between the lobules and around the finer bronchial tubes. In studying the cellular masses we encounter the so-called giant cells. There is, indeed, nothing we do not find in this caseous pneumonia that we have not spoken of in tubercle, only the proportions are different and the admixture of the elements of inflammation more marked. These changes spread usually over a large portion of the lung, and, especially as regards the amount of connective tissue, are modified by the duration of the disease. One of the most striking of the lesions, and one which I have rarely failed to encounter in the many specimens examined, is the infiltration with small cells of the walls of the alveoli. Green,* too, regards them as very important, and Wilson Fox† looks upon them even as tubercular. As the cheesy matter degenerates, evidences of broken-down tissue, with considerable granular detritus, meet the eye. Yet

* Mittheilungen aus dem Pathologischen Institute zu Munchen, 1878.

† Virchow's Archiv, lxxiii., 1878.

* Pathology of Pulmonary Consumption, 1878.

† Transactions of Pathological Society of London, 1873.

Cohnheim* has recently told us that the cheesy part contains in reality but little fat.

Now, is there anything in all this which broadly separates this so-called caseous pneumonia in its minute structure from tubercle? Is there anything more than the evident admixture of a marked inflammatory lesion? Is there anything in the low vitality of the mass and its tendency to decay and fall asunder which is different? And if we call this affection at once "tubercular pneumonia," we are, I verily believe, much nearer to the truth than in endeavouring to separate it from tubercle altogether.

But it is not simply on histological grounds that I arrive at this conclusion. I have long studied the subject clinically, and I can record it here as my deliberate opinion that the number of cases of consumption which are supposed to have inflammatory beginnings is grossly exaggerated. They are the exception, not the rule; and even in the cases in which we have had evidence of an active bronchitis or pneumonic condition having seemingly been the start of all the difficulty, how often do we not find, on close analysis, that failing health, hacking cough, even slight spitting of blood, have preceded the acute symptoms? Then, too, we may get the history of inherited scrofulous or tuberculous diathesis. But I do not wish to be misunderstood. There are cases in which none of these qualifying elements can be discerned, which have, to all appearance, started in an acute inflammatory process. It is only the relative frequency of these cases that I am denying.

Again I ask, what becomes of the instances of so-called pneumonic phthisis? Do they not become tubercular? How many autopsies can any one recall, where persons dying from some intercurrent affection, while labouring under so-called pneumonic phthisis, did not show at some portion of the lung, or in the other lung, miliary tubercle or larger masses which everybody would pronounce undoubted tubercle?

Now, admitting the connection of so-called "caseous pneumonia," or "pneumonic phthisis," with the subsequent development of tubercle,

* Die Tuberkulose vom Standpunkte der Infektionslehre, 1879.

—and nobody denies this, whatever his views as to the character of the connection,—I believe that it is quite as logical to reason from the after-appearance of the tubercle as to the primary character of the so-called inflammation, as to reason from the inflammation and the absorption of the products to the formation of its tubercle. The reasoning backward is as good as the reasoning forward, and, I think, infinitely more likely to be true.

Again, how many cases of ordinary pneumonia happening in perfectly healthy persons are met with which pass, no matter how, into tubercle? Certainly not many. When it occurs, there is generally the history of scrofula or tubercle in the family, the taint. Many of the advocates of the inflammatory origin of tubercle, or of its subsequent development after inflammation, tacitly admit this when they speak of the inflammation as special or specific. If it is special or specific, I say at once it is tubercular,—tubercular either from the onset, or it has become so when it presents the appearance of caseous changes.

I am advocating, then, the view that caseous pneumonia leads to tubercle elsewhere, because it is really tubercle already; and that it is not the products of ordinary inflammation, but the tubercular products, which infect. They may appear with the inflammation, or be the result of a special kind of inflammation; that does not affect my argument.

Now, one great difficulty in admitting this argument is, that since the researches of Virchow have familiarized us with the facts, we cannot assume all kinds of caseous degeneration as tubercular. We know that such changes may happen in purulent collections, in cancer, and that, microscopically, they present the features of the so-called cheesy degeneration which attends pneumonic phthisis. But is there nowhere else similarity of appearance without identity of meaning? Can we tell every case of cancer, under all circumstances, by its cell-growth alone? Are there no healthy textures in the course of formation that look like it? Does every sarcoma present infallible features at all its stages? Moreover, I have already stated that we very generally, nay, almost constantly, find in the pneumonic lesion

much the same elements, mixed with the products of degeneration, which we recognize as tubercular in undoubted tubercle.

I believe, then, that pneumonic phthisis is a tubercular pneumonia, and that the inflammation is tubercular from the onset, or has acquired a tubercular nature by changes in the cell-life which we do not understand. Perhaps these are connected with sluggish tissue-change under the influence of a virus,—a taint inborn, or acquired by impure air and bad hygienic surroundings. That we cannot see these things in the protoplasm or cells with even our highest powers is no proof of their non-existence. Do we perceive the manly form of the athlete in the little spermatozoon? What do we find in the ovum to explain the transmission of the delicate features and matchless figure of one generation to the famed beauty of another? Where are, in either germs, the lurking tendencies to disease which we see constantly reproduced in families? Where the specks that indicate cancer, scrofula, tubercle, gout?

The tubercular inflammation may appear as such, and then we have a more or less acute character of case; or the tubercular action may not start for years afterwards. I shall show you some drawings taken from cases that I had watched for years.

Here is one from a woman of 45, who, under my observation, had for eight years a chronically-consolidated lung, non-tubercular. Sorrow overtook her, her general health failed, struggles with poverty came, and she became tubercular. You perceive here how the lower lobe of one lung had undergone the caseous change and contained tubercles, while the upper is simply dark with pigment and densely consolidated. A few scattered, comparatively recent miliary tubercles are found in the other lung.

Here is a yet more striking instance, where a man had for five years a lung which, you see, looks exactly like the red hepatization of ordinary pneumonia. Softening, without a vestige of tubercle, is occurring in parts. In a streak at the upper lobe tubercular pneumonia is evident; the other lung is entirely healthy.

Perhaps the views here advocated may

appear to call in doubt the transmission of tubercle by resorption and infection,—its constant reproduction, as it were, and scattering through the system. But they do not. These observations are among the best sustained and most valuable in modern pathology, and they are all the easier to understand if we admit the starting-point of the infection to have been a tubercular inflammation. As a contribution to this doctrine of infection and absorption, and also as furnishing many points of analogy with the instances mentioned where inflammation of the lung has been followed by tubercular formations, let me show the remarkable specimens of abdominal tumours and tuberculosis on the table, taken from cases of mine that happened some years since at the Pennsylvania Hospital.

In the first case, occurring in a man the subject of syphilis, and much tormented with abdominal pains, a hard tumour was discovered in the right iliac fossa. This was followed after some months, by marked emaciation, sweats, diffused abdominal tenderness, diarrhoea, and signs of deposit in the lungs. At the autopsy, the mass you see here of dense fibrous tissue was found in the right iliac fossa, below the head of the colon; a small cavity containing pus was detected in its interior; on its exterior were tubercular nodules. The intestines, on their peritoneal surface, throughout their length were thickly studded with tubercular nodules; the mesenteric glands were enlarged and softened; there were miliary tubercles in the lungs.

In the second case, a man also broken down by syphilis, there was the same history of colics and cramps, and a tumour was discovered in the right iliac fossa, three inches from the crest of the ilium. He had noticed the tumour for years. Gastric irritability, tenderness over the abdomen, ascites, diarrhoea, fever, cough, signs of lung-consolidation, became gradually prominent symptoms, and he died exhausted. A thick, firm mass of inflammatory matter was found covering the cæcum, and had occasioned the tumour. At one part, on the outer and lower wall of the cæcum, was a small cavity containing gelatinoid matter mixed with black, thin fluid. The ileum above the ileocæcal valve, as well as the inflammatory, hard tissue in

this region, was covered with tubercles. The kidneys contained tubercles; in the left suprarenal capsules were several tubercular nodules. The lungs were full of small, gray, tubercular granulations. Here then are two cases of strange similarity in which a local inflammation in the abdomen was followed in time by diffused tubercle, both abdominal and pulmonary.—*Philadelphia Medical Times*.

OCCASIONAL SERVICE OF ALCOHOL IN THE TREATMENT OF PNEU- MONIA.

BY OCTAVIUS STURGES, M.D., F.R.C.P.

In the observation of pneumonia, so soon as that remarkable event has happened which we recognize as the crisis, we are at once relieved of the anxiety which, up to that time, no one can be without who is acquainted with the many phases and turns of the disease. We are reminded to-day by a case now under treatment that this supposed security for rapid recovery is not always valid. Upon this text, therefore, of a pneumonia of ordinary character and severity lingering far beyond its usual time, we may conveniently consider in what degree and by what methods, if any, an affection such as this, which has suffered, perhaps, more than any other at the hands of the druggist, can be helped through its critical stage, shortened in duration, or assured against untoward accidents.

Sarah F—, a slight, pale girl of eighteen, engaged in laborious work as a biscuit packer, ill-nourished and neglected, was admitted on the third day of a sudden illness presenting the ordinary symptoms of pneumonia. Having gone to bed, that is to say, apparently well, and after the usual day's work, she awoke towards morning screaming from the severity of a pleural "stitch" of the left side, and had several shivering fits in succession. On admission the left lung, as to its lower half, yielded the proper signs of consolidation. The temperature was 104.4°; pulse 120: the sputum rust-coloured; there was some herpes on the mouth, and scarce anything was wanting (except, indeed, flushing of the face) of that assemblage of symptoms which so unmistakably betokens pneumonia. From no real necessity

or fear for what might be threatening, but only because the girl was low and miserable, she was given during the first two days four ounces of sherry daily. On the fifth day the crisis occurred, the temperature falling from 103° to 98°, or five degrees in twenty-four hours, and along with this the patient exhibited the usual signs of general revival.

It was at this juncture (and here is the point to be discussed) when pyrexia had disappeared, and the sounds of resolution were audible, that an event happened which is rare in pneumonia, but by no means without parallel, and in consequence of which the duration of illness was at least doubled. Two days from the time of the crisis and almost in sight of convalescence a relapse occurred. The features became again depressed, the temperature rose, and the tongue, for the first time, became dry. And now, although the time was reached when properly the invaded lung should have been wholly free and pervious, it appeared upon auscultation that a solid patch still remained about the middle of the left lung, giving all the signs of consolidation as plainly as at first, but over a much smaller area. It was clear that the process of resolution had stopped short, or rather that in this bit of lung it had been altogether abortive. The unsealing of the lung by the clearing away of inflammatory products had been incomplete.

It is, I admit, a mere hypothesis, yet one which may fairly be ventured, and which, as I have said, there are other cases to confirm, that this return of fever and prostration was directly due to this improper or prolonged retention of effete material; that the system, if we may so speak, began after a while to resent such retention. And the question I would ask is this, Was this misadventure, which retarded recovery for three weeks and caused a relapse which for some days seemed even more serious than the original illness, due to any fault of our own, which may be avoided next time? Supposing, for instance, that, noting this girl's poverty and squalor, and seeing that she had little strength of herself to contend with pneumonia, we had continued the alcohol or had resumed it, in some form, at such time as the crisis was expected, would that have made any difference? I think so.

As a matter of fact, you may remember (for what it is worth) that when this patch of consolidation and this second fever had lasted some days, we did venture upon alcohol, two ounces of brandy per diem, and that from that day onwards the evening temperature fell from 103°, which had been its reading for more than a week, to below 99°. Along with this improvement the solid patch disappeared, and now for the first time, on the thirty-second day from the initial rigor, a most inordinate duration for pneumonia, the girl may be called convalescent.

Let no one suppose that alcohol or anything else of this kind is necessary generally for the cure of pneumonia. Let no one believe for a moment that the cases related from time to time of pneumonia successfully treated by this drug or that prove anything whatever. The sudden arrest of pneumonia is in the nature of it. We have suffered enough in the past from ignorance of this great fact to make us hold it now as a very precious truth. At the same time, and with the manifest and unquestioned good that has been got from letting pneumonia alone, it is possible that we may be resting at present too complacently in the belief that this affection *always* does best without active help—that our present results are not only better than those of the last generation (which is certain), but that they are the best possible, both as regards the mortality and the duration of the disease. Consider for a moment the nature of the pneumonic process. Its cardinal fact is crisis, and crisis consists in these two phenomena—how related we need not at present inquire—the sudden cessation of pyrexia, and, at or about the same time, the rapid disappearance of the inflammatory exudation which has been occupying the lung. Our chief interest and anxiety, therefore, concern the conduct of this exudation. We have reason to expect that in the course of a week or thereabouts it will spontaneously quit its hold. And for the while we wait in hope of this result—and very much in the dark, it must be confessed, as to any intimate changes actually in progress within the lung. What we fear most lest, without our knowing, a process of destruction may be going on, and that instead

of a simple pneumonia, perfectly harmless to the lung except for the room that it takes, we may have a rapid dissolution of lung texture, a form of suppurative phthisis, in fact, necessarily fatal. It is to be hoped we may be able some day to distinguish and separate such cases. We do sometimes recognize them even now, and always look out for the destructive form among the drunken and the starved, and wherever a pneumonia does not at once make itself manifest, but needs to be searched and listened for. But excluding such instances, there is another fear during this period of waiting. It is lest the exudation should overstay its proper time; lest, from some cause or other (and one within our own control it may be), resolution should be delayed or incomplete. What makes pneumonia go amiss is the miscarriage of this grand act of the disease. No case of the kind, therefore, can be free from anxiety until the exudation begins to move; no case can be absolutely safe until it is gone.

And what is the condition of the patient, as this great event approaches, which, in a quite literal sense, is to loose him from his disease? We somewhat disguise this condition, I think, by still preserving that old language of metaphor which speaks of pneumonia as “*sthenic*,” as though we had strength to subdue instead of strength to provide. Early prostration is one great feature of pneumonia. It is indeed by this symptom, as measured by aspect and posture and mental activity, more than by any other, that we can best estimate the probable issue. But at the particular juncture we are considering, there is not only the natural weakening proper to the disease, but the patient has now had some five or six days of bed, and been suffering all the deteriorative effects of imperfect blood aeration, renal congestion, and heart strain. Meanwhile there has been a very inadequate food-supply to meet an inordinate tissue-waste: inadequate, because, whatever our wishes may be, the assimilative power is apt to be very feeble, and the directions of books as to frequent and ample nourishment seem only to mock us. It is in these circumstances, I say, that crisis comes. The lung is called upon to free itself of a burden whose nature and quality may be fairly estimated

upon the evidence of fatal cases, where sometimes the actual weight of the occupied and solid lung exceeds that of its fellow by three pounds or more.

Now, by whatever process it be that this material is disposed of in recovering cases, we know as a fact that when prostration is extreme it is often not got rid of at all; that in other instances, like the one before us, it is only partially disposed of, and that at the best the process of deliverance is not without its own suffering, of which the profuse sweating and exhaustion sometimes preceding crisis afford some evidence. It may be that the composition of the inflammatory material is one factor in determining its conduct. The more catarrhal the pneumonia, the more tardy may be its resolution. We have, in fact, to recognize many gradations between the orderly process we are considering and the quite different process of pulmonary catarrh. But that is not now the question. It is enough to know that the symptoms before us are those of ordinary lobar pneumonia; beginning as it begins, and likely to end as it ends. There is material to be got rid of within an appointed time. It is the proper destiny of this material to liquefy and disappear. All that is necessary for the process (or at least all that we know of or can in any intelligible way help to supply) is an adequate vitality on the part of the patient. The crisis we are expecting is a vital act, for the performance of which it is necessary that a certain amount of strength should be still in reserve.

I need not remind you how strongly contrasted is this view of pneumonia with that which was formerly held. Nor can we doubt that by the old plan of depletion the natural course of the affection was disturbed and embarrassed precisely in the manner and precisely at the time when it was most easy and most dangerous so to treat it. The large mortality of that day is indeed hardly explicable without considering this nice adjustment, so to speak, of lowering remedies to an enfeebled and oppressed body. Patients would die of pneumonia, or rather with it, with lungs barely hepatized (we have the written records of such cases), while so much were the proper features of the affec-

tion disguised that its natural tendency to recovery, which at present governs all our treatment, was not so much as thought of. Pneumonia was a long, lingering disease, as well as a very fatal one. Now I think it must be admitted that our present treatment of pneumonia is, as a general rule, perfectly satisfactory—the treatment, I mean, first formularized by the late Dr. Hughes Bennett, and founded on the principle that the patient is to be fortified and sustained in the trial that awaits him by means of such nourishing food as he can best take. That by this method an acute disease of such apparent, nay, of such real gravity, should be practically recovered from in a little over a week, is, it will be admitted, remarkable. There is nothing that I know of which drugs can achieve half so striking as is this result achieved by discarding them. There can be no greater mistake, however, than that of supposing that the treatment just indicated amounts only to a treatment of waiting and expecting. On the contrary, it implies a very urgent need for support, and a very present danger when such support is withheld. It is the spirit and not the precise letter of the treatment which has to be kept in view. It may happen in some cases that the need is so pressing that the mere feeding will not suffice, or the danger may be so imminent that there is not time to wait for the good of it. It is not always that “nutrients” can be taken in sufficient quantity; sometimes they can hardly be taken at all. These are not instances where the treatment fails, they are instances where it requires special modification; where we have to substitute for the while some means of support which shall be more prompt and immediate than ordinary food.

It is here that the question of alcohol occurs, and the great difficulty is to know betimes exactly where and when to apply it. If we measure pneumonia by the amount of lung that is solid, we shall never, or only by occasional accident, get a correct estimate of it. On the other hand, if we consider the actual present condition and aspect of the patient as well as his immediate antecedents and surroundings: if we remember that the pneumonia of destitution and of drunkenness; the pneumonia

that is fought against and for a while disregarded; the pneumonia that appears, be it ever so small as to its site, after severe nervous shock or prolonged exposure, that all these have a special need of support, and as a rule an absolute need for alcohol, then I think we shall be taking such a view of the disease as experience teaches, and applying legitimately the great principle upon which its successful treatment is based.

It was from this chair, not long before his death, that my friend and colleague, the late Dr. Anstie, in a clinical lecture upon pneumonia, spoke of the large quantity of evidence that he had collected and was preparing to publish in proof of the proposition that high temperature combined with large urea discharge furnished the strongest *prima facie* reason for the administration of alcohol. I will not assume so much as this. I will take rather the admitted service of alcohol as defined accurately enough for our purpose in the well-known investigations of Professor Parkes. We can hardly contemplate the condition of these pneumonic patients, their low vitality, and the physical change which has to be accomplished within them before relief comes, without being reminded that here are precisely the circumstances which alcohol claims to be of use. Just at the pinch of crisis, when a little access of strength, a little more ability to assimilate food, is so urgently called for, when, moreover, as the nature of the disease teaches, a few hours will bring us to the time when we shall be able to pay the penalty incurred by resorting to such a succour, here, if anywhere, is the occasion and opportunity for alcohol.

Such a method of employing alcohol in pneumonia restricts its use to a particular period and a particular phase of the disease. When the food that the patient is able to take is obviously insufficient, when with a small lung implication his aspect is like that of typhoid fever, when he is past middle age, or his habits of living have been dissipated, or a period of mental or bodily distress has preceded, and perhaps caused, the pneumonia—in all such cases, I think, we may expect great service from alcohol, and often find necessity for it. If I were called upon to express an opinion in few

words as to the use of alcohol in this disease, I could (apart from the question of age) put the result of my observation into no more definite or scientific shape than this—that the pneumonia of mystery, that which comes from some obscure or conjectural cause not commonly productive of such result, overwork or anxiety, or physical injury, or what not, and which nevertheless, upon interrogation of the other organs, appears to be a primary disease, is the kind that commonly needs alcohol; while the frank open pneumonia which is the result of some definite chill, or short exposure, commonly does without it.

And, finally, let it always be remembered that alcohol in pneumonia must be given in anticipation of danger rather than in the immediate presence of it. We find the patient blue and gasping, and hardly conscious, and, as by an instinct, in accordance with universal practice, we pour in brandy. But if we consider the matter, and especially the known action of alcohol as a powerful narcotic, it is rather harm than good that we ought to expect from such an agent at such a time. The opportunity for alcohol has passed. Whatever may be the hope in such a condition (a question I do not attempt to discuss now), it can hardly be this.—*London Lancet*.

A CASE OF DOUBLE EPIGLOTTIS AND DOUBLE VOICE.

The case is that of a man 30 years old, by occupation a singer and contortionist at variety shows.

He came to me complaining of a weakness of the voice; that he could not always grasp the note at the beginning of a piece or turn of a song. He has the ability to command with ease the chest and the falsetto registers, and in singing has a baritone and a falsetto voice. Neither gives the least discomfort, and in ordinary conversation he has no preference as to which to use. In his family he uses the high voice entirely, but in business prefers the low voice. He uses either according to habit or association, and asserts that many of his friends are not aware that he has two voices. He gained the extra voice when he was sixteen years old.

In singing he always uses the high voice, as with it he can command a greater compass. In the high voice he has the upper and lower range in the falsetto register, and can run the scale from A to F.

The compass of the low voice is so small that he cannot reach the high notes of an ordinary song with it, and in singing only uses it to break into the falsetto voice and produce a sensation.

He may be said to command the lower range in the chest register, and can run the scale from A to A.

His throat externally is very prominent, on account of an angular curvature of the spine in the dorsal region. The cricoid cartilage is large, and has a deep V-shaped notch in its upper border.

The mouth and throat above the base of the tongue are quite normal in their shape and condition.

There is a marked double arrangement of the glandular tissue at the base of the tongue. The *epiglottis is double*. The right half of the cartilage overlaps the left to a slight extent. The division in the mucous membrane extends down to the median glosso-epiglottic fold, but the division in the cartilage must extend further, as during the production of the falsetto voice the lateral halves move inward, as if they were hinged in the middle.

The difference in the length and width of the cords, as well as the elliptical opening in the falsetto register and apposition in the chest register, can be readily demonstrated.

As to whether the peculiar formation of the epiglottis has anything to do with his ability to command the two voices, I am not prepared to say; but it is very probable that it has, for when the sides of the epiglottis are drawn in during the formation of notes in the falsetto register, the calibre of the laryngeal cavity is decreased to a considerable extent, and thereby renders the production of the falsetto voice easier.—T. R. French, M. D., *Annals of Anatomical and Surgical Society*.

CANADIANS IN ENGLAND.—Bertram Spencer, M.B., Toronto, has been admitted a member of the Royal College of Surgeons, England.

ENQUIRIES CONCERNING THE EUCALYPTUS.—Physicians familiar with the subject, who are willing to enlighten their less informed professional brothers in the East, are requested to send answers to the following questions addressed to S. V. Clevenger, M. D., No. 189 Thirty-Seventh Street, Chicago, Illinois:

1. What localities, to your knowledge, have been rendered more healthful by growth of *Eucalyptus globulus*?
2. What property possessed by the tree causes the change, in your opinion?
3. Does the tree effectually drain marshy ground?
4. Does it diffuse its peculiar odour noticeably where planted?
5. What is the northernmost limit of its growth on the Pacific Coast?
6. What are the relative merits of the dried leaves, fluid extract, tincture and eucalyptol?
7. Can eucalyptus in any form be substituted therapeutically for quinine, and to what extent?
8. Do you consider it a reliable antiseptic?
9. Have you used it advantageously in rheumatism? If so, externally or internally?
10. Do you notice much increase in urea excretion after its administration?
11. Has it, when applied externally, any advantages over other stimulating applications?
12. Please state your experience with it in diphtheria, asthma, skin affections, ulcers, pneumonia, typhoid fever, neuralgia, bronchitis, scarlatina, and other diseases.
13. Does the plant deteriorate medically or otherwise by transference from its native soil?
14. Please add such statements concerning *Eucalyptus* as you may consider of general interest to the profession.
15. Is there any other species of eucalyptus besides *globulus* equal to or nearly equal to it in medical properties?

To all gentlemen favouring me with an answer I will mail the reprinted article, treating their replies in connection with a general review of the subject to appear in the *Chicago Medical Gazette*, and *Journal and Examiner*. There is such a diversity of opinion upon the value of eucalyptus as a therapeutic agent that at this time communications concerning it from California and vicinity physicians would be read with interest.—*Pacific Medical Journal*.

HYDRIODIC ACID IN ASTHMA.—J. P. Oliver, M.D., of Boston, writes as follows to the *Medical and Surgical Journal* of that city: "In Dr. F. I. Knight's review of 'Berkhart on Asthma,' he incidentally alludes to the results of my treatment of asthma with large doses of iodide of potassium. In connection with the above, I desire to state that the drug, in doses of five or ten grains, seldom gave relief; but large doses, continued for a long period, gave entire relief in the majority of cases. Some patients, however, were unable to take the iodide of potassium even in small doses; in such cases I used as a substitute hydriodic acid, and, as Dr. Knight says, 'with surprisingly satisfactory results.'

"The form I have oftenest used is the syrup of hydriodic acid, and that prepared by Robert W. Gardner, of New York, I consider the best; it is agreeable to the taste, and not likely to be affected by exposure to light and air. It should be given as follows: Begin with small doses, twenty or thirty drops well diluted with water, and taken about half an hour to an hour before meals; if taken after meals it may disturb the stomach, set up fermentation, and cause colic, acid stomach, and pain in the head; increase the dose gradually, and a tablespoonful dose should not be exceeded.

"In cases of chronic bronchial catarrh, and in fact in all cases where iodide is indicated, I have found the syrup of hydriodic acid of great value."

AS IT SHOULD BE EVERYWHERE.—St. Paul (Minn.) Medical College announces an obligatory graded course of four years, requires an entrance examination in the higher English branches, and yearly professional examinations. Harvard this year leaves it optional with its students to graduate in three years, or take a four years' course and receive their M.D. *cum laude* on passing the fourth year examination. We hope to see all United States Colleges of repute follow the good example set them by St. Paul Medical College.

DISFIGUREMENT FROM GUNPOWDER can, it is said, be removed completely by free vesication and removal of the epidermis.

Surgery.

THE SYPHILITIC DIATHESIS.

INAUGURAL LECTURE OF PROF. ALF. FOURNIER.

(Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.)

Wednesday last M. Fournier inaugurated, before a numerous audience, his clinical course of cutaneous and syphilitic diseases, which he did for the first time as titular Professor of the Faculty. After fourteen years consecrated to this instruction, he did not believe it useful to indicate in an exordium the principle which should guide him in this course. However, he could not, he said, be wanting in that tradition according to which professors newly elected rendered to their ancient masters the homage of their respectful gratitude. More than any other he knew what he owed to Denouvilliers, Chassaignac, Aran, G. Sée, Ricord. "I know," adds he, "that for the school my principal merit is being the scholar of that great master who rendered illustrious French syphilography, and whom in these lectures one may succeed, but never replace."

It is of syphilis that I wish to speak to you. We will at first cast a glance over the whole subject; for if its symptomatology and its diverse manifestations are now well studied, it is much less known as a general disease, as a diathesis.

What is syphilis? Most authors have shrunk from the difficulty of giving a definition; however, it is not impossible to characterize syphilis by its most important symptoms. It is a diathetic disease, resulting from the absorption of a particular virus, contagious and hereditary, essentially chronic, and revealing itself by a crowd of manifestations subjected to a veritable chronological order. It is a disease of foreign importation into the organism, and when it takes possession of the economy it is the result of the accidental introduction of a foreign principle.

Syphilis is essentially a specific disease. Accumulate all the common causes which more or less produce ordinary diseases, you will never make the pox. There is no syphilis without an anterior syphilis: an unique cause presides at the genesis of the disease—it is the contagion of the syphilitic virus. It is, then, a

disease which form a species, which has its individuality.

How does syphilis arise? We may here affirm two laws: First, the first symptom which succeeds to the syphilitic contagion never succeeds to it but after a lapse of time more or less prolonged, which is called the period of incubation. A patient exposes himself to-day to contract syphilis; it is only in three or four weeks that he will see some sign upon him. It is rare that it may be longer, still more exceptional from five to six weeks.

The second law is this: The first appreciable phenomenon that results from the contagion is always manifested at the point at which the contagion was exercised, never elsewhere.

The lesion which reveals the primitive explosion of syphilis has received the name of chancre. The chancre exists then, and it is but this: the initial accident which results *in situ* from the syphilitic contagion.

The chancre is not slow to react upon the ganglions into which flow the lymphatics of the part affected. The bubo is never wanting; it constantly accompanies the syphilitic chancre; it follows it like the shadow follows the body, says Ricord. These are the accidents which by themselves alone compose the first period of syphilis.

To see the chancre and its satellite thus isolated without reaction upon the economy, one might believe that the chancre constitutes a local accident. It is not so. Some weeks, on an average forty-five days (retain this figure) are not passed over before a new series begins, other manifestations break out in all parts. It is then, in fact, that are announced other accidents, which have received the name of consecutive accidents or general.

First of all, the general accidents of pox are distinguished from the chancre by these three characters: 1st, They are posterior to it. 2nd, They are not, like it, the result of an exterior influence of a contagion. 3rd, They are not localized at the point in which the contagion was sown.

In what do these general accidents consist? It suffices us to consult the table of contents of any treatise upon syphilis to be struck by

the multiplicity, by the variety, and by the dissemination of these accidents. There is no system that it may not strike, no organ that it may not attack. By itself it constitutes an entire pathology; there is no other disease which may be compared with it in this respect.

The evolution presents two characters: 1st, The diathesis evolves under the form of intermittent manifestations. 2nd, It is subject to a veritable chronological order.

Do not represent to yourselves the pox as a disease always in action; it is a disease with manifestations separated from one another by intervals of repose, in which nothing morbid is produced. The intervals of repose are always more considerable than the periods during which the disease is in activity. We might define the pox: a state of apparent health, interrupted at varied intervals by morbid manifestations. It is a disease which proceeds by successive crises, by veritable shocks, separated from one another by intervals in which the morbid influence is no more betrayed by any symptom.

In the second place, the evolution of the diathesis is subject, like the succession of symptoms, to a chronological order. It has been remarked for a long time that the evolution of the pox was not exposed to chance. It is, so to speak, a hierarchical disease—a disease, *par excellence*, under orders. It is thus that amongst the innumerable symptoms which it presents, some succeed to the chancre at a few days' interval; others come only two or three years later; others finally form the rear guard, and are produced only at a very advanced age, after 12, 15 years or more. All the accidents have their date marked in the calendar of the pox.

These accidents differ amongst themselves, not only by their chronologic relations—they differ also by anatomical, clinical and symptomatic characters. Young syphilis is very different from aged syphilis. In the secondary period the accidents present two characters: they implicate the tissues only in a superficial manner; they are relatively benign. The most common phenomena are eruptions of syphilides of erythematous type, papular at most, adenopathies, some varied nervous troubles more in-

teresting than grave, some ocular affections hardly going beyond iritis, some troubles of the organs of locomotion or of the viscera, and that is all.

Opposite the secondary accidents, superficial and benign, let us place those of the tertiary period. We see here two characters also, but absolutely opposed to the preceding. The tertiary accidents implicate the tissues in a profound manner; they attack them in their parenchyma, destroy them; they do more than compromise the functions, they abolish them. In the second place, their prognosis is grave, and even very grave for some. The tertiary pox is characterized by hyperplasias, which tend to sclerosis or to the gumma sclerosis—that is to say, that fibrous degeneration which embraces the organs and annihilates them; the gumma—that is to say, that infiltration which penetrates them and leads them on to death. Thus tertiary syphilis is, *par excellence*, that which destroys and tends to incurable infirmities, and often causes the death of the individual. So it has been said with reason that tertiary syphilis almost constituted a disease different in aspect from secondary syphilis. Young syphilis is quite uniform in its manifestations; on the contrary, aged syphilis is remarkably polymorphous. If you take ten subjects having a secondary syphilis, nine of them will present the same accidents; but the older the pox, the more polymorphous it becomes.

Another curious point: the younger the syphilis, the more manifestations it produces; the older it is, the more sparing it becomes of symptoms. Secondary syphilis offers always many manifestations at once; on the contrary, the tertiary pox is of discrete nature. What one finds in it is an accident, or at the most, in some cases, a group of two or three accidents.

The secondary period is constituted by a group of accidents massed in a short space of time, at the end of which they have nothing more to be produced. On the contrary, the tertiary period is composed of accidents having no fixed onset, and being able to show themselves at no matter what date; the onset of this period cannot be fixed in a precise manner.

It is possible that the interact which sepa-

rates a tertiary accident from another accident of the same kind may be extraordinarily long. It may be that during a more or less considerable number of years the diathesis may remain dormant, to be reawakened afterwards by the explosion of some accident or other. These *entr'actes* of the pox are commonly two, four, or six years, but it is very common to see them make a truce for twelve, sixteen, or eighteen years, to manifest themselves anew under the form of cerebral syphilis, for example. These *entr'actes* may be of 28 or 30 years. We find cited, in all authors, examples of pox resting silent for 45 or 50 years, and M. Fournier has observed one case in which this latent period endured for 52 years.

It is useless, after this, to insist on the duration of the disease; it is a diathesis which differs not from others, for excessive duration is the peculiarity of these morbid states.

At least is this diathesis susceptible of being extinguished? It is difficult to give a precise answer to this question. An ancient author says that the pox makes truces rather than peace with its subjects. Cazenove wrote that one could not cure the syphilitic temperament, and that one lived with it as with the lymphatic temperament. Unfortunately facts speak in favour of this desolating opinion.

It is certain that one has often seen tertiary accidents produced in subjects methodically treated, and even appearing cured for a long while.

The pox is never doubled. The production of a second pox would be a happy sign, attesting that the first was sufficiently effaced in order that a second might appear. We find in the periodicals a few examples of double pox. But these cases are very contestable.

In all probability the pox is not extinguished in the organism—it persists with the duration of life. But in practice the rule is that syphilis, after having been subjected to a prolonged methodic treatment, remains silent and inoffensive during the rest of existence; the rule is that most individuals who have had the pox in youth may marry and remain altogether inoffensive to their wife and children; they continue themselves to live as if they enjoyed perfect health.

This fact, in appearance so desolating, that the pox is never contracted twice, does not, however entail all the consequences that we habitually draw from it. Typhoid fever, also, but rarely, is taken a second time, and yet the idea enters no one's head that a patient formerly attacked with typhoid fever remains all his life exposed to the divers accidents of that disease.

Concerning the treatment, there is a *morale* to be drawn from the whole of these characters. It is very evident that a disease so terrible and so prolonged claims a treatment of proportional energy. To abandon such a disease to itself is an idea which may germinate in certain dreamy minds, but pure expectation has shown its results, and is to-day condemned. It is at least evident that the treatment to be instituted here is a special treatment. It ought to be of long duration, like the treatment of diatheses in general. For a chronic disease a chronic treatment is necessary. A specific medication ought to be pursued at least during many years.—*La France Médicale*.

A POINT IN THE DIAGNOSIS OF STRICTURE OF THE RECTUM.

It is not many years since it was generally accepted that the passage of tape-like *faeces* was diagnostic of stricture of the rectum. This teaching has gradually given way in the light of clinical observation, and it is now commonly understood that many other conditions besides stricture may cause deformed passages, such, for instance, as tumors and displacements of the uterus, pelvic growths, and, more than all else, the spasmodic action of an irritable sphincter muscle. If the shape of the passages is of any diagnostic value in this affection, it is from the small, rounded, goat-like stools that we have to fear the existence of grave occlusion of the rectal calibre, rather than from any other. But, though this has been generally taught and understood for some years, the idea has always been tenaciously held that, although deformed passages might be caused by other conditions than stricture of the rectum, still a stricture always involved the idea of misshapen stools, and, indeed, that stricture with natural passages was a physical impossibility. This

also seems to be delusive in certain cases, and, if we stop to think a moment, there seems to be no reason why, with a stricture well up in the rectum, *faeces* should not pass through it in small quantities, accumulate and become massed again in the rectal ampulla, and finally escape of a natural size and shape. That this does occur is no longer a question for theorizing.

In an able article on Annular Stricture of the Intestine: its Diagnosis and Treatment, in the "British Medical Journal" for May 31, 1879, Dr. Stephen Mackenzie wrote:—"The fact that full-sized, properly formed *faeces* are occasionally passed of course shows that there can be no organic stricture." Under an active fire of adverse criticism he withdraws the statement in the issue of the same journal for May 15, 1880, with the explanation that it was founded on his personal observation, which has since been supplemented and corrected by that of others. In the same number of the journal in which his first statement appeared, another case was published by Dr. Walters, of annular stricture at the junction of the sigmoid flexure and the rectum, in which the evacuations were sometimes not larger than the little finger, while at other times large, bulky motions were passed. Dr. Sawyer also describes a similar case, in which he personally examined the passages, and found them of normal size and shape. Mr. Hilton Fagge, in his article in "Guy's Hospital Reports" (also quoted by Dr. Mackenzie), deprecates the importance attached to the statements of patients in regard to this matter, and thinks that a trustworthy answer to an inquiry on this head is more than can ordinarily be expected from hospital patients.

Dr. Mackenzie does not entirely give up his point, however. He admits that the presence of a tight stricture as low down as the junction of the sigmoid flexure and the rectum is compatible with the occasional passage of natural *faeces*, but still thinks that the passage of small, lumpy, flattened, or otherwise deformed *faeces*, when properly formed and full-sized *faeces* are *never* passed, is a sign of great value. We believe this is rather more than most observers would be willing to allow, and that at the bedside this symptom is generally considered of little or no practical value. It would be easy

to quote authorities for this belief. The question is, however, not how high up a stricture must be to permit of natural passages, but how low down it must be not to permit of them. The feces naturally take their shape from the last orifice through which they pass—the anus. If the sphincter is practically supplanted by a mass of hard stricture-tissue, or, in other words, if the stricture be close to the anus, or be forced close to it in the act of defecation, as it sometimes is—then, and then only, will the stricture show itself by impressing its stamp upon the material which passes through it.—*N. Y. Medical Journal.*

PROGNOSIS OF CANCEROUS TUMOUR OF THE BREAST.

Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.

I seize this occasion to say a word to you on the prognosis of cancerous tumour of the breast. We are often told, "You operate, but the disease returns." Yes, it returns, because that is the nature of cancer. I do not stop to refute those who say that they have radically cured cancers by an operation. They deceive those to whom they say it, or they deceive themselves. Some, for the benefit of their cause, call benign tumours, cancers, such as simple adenomata, which they remove and say they have cured a cancer, but no right-minded man who knows his profession could say this seriously.

Cancers recur more or less quickly according as the patient is younger, more vigorous, or more aged. It seems that the activity of the life of the cancer is in direct relation with the vitality of the tissues in the age of strength. But in subjects of from 50 to 60 years of age, here is in what order the rapidity of the evolution of the cancer may be categorized.

Scirrhus, the limited, developed outside of the gland, abandoned to itself, takes from four to five years to produce death. Disseminated scirrhus is more active: in three years the patients succumb. When the gland is primarily interested, the disease marches a little more rapidly.

Sarcomata, primary or consecutive to adenomata, abandoned to themselves, are at times very malignant, at times relatively benign.

When they contain only few young fibroplastic elements, they ulcerate rapidly, and cause the patients to perish by hemorrhages. At other times they are richer in fibrous elements—they progress slowly and acquire a very great volume. They then cause death in five years at the most.

Encephaloid cancer progresses more quickly: it kills in eighteen months or two years.

Cancer developed primarily in the lymphatics has the same march as encephaloid. Epithelioma of the skin of the breast may let the patients live five or six years, on condition that we abstain from cauterizing them. When we perceive any one of these cancers in opportune time—that is, before the patients have lost flesh and when the general health is still good; that is, when we can take away the whole of the disease with a large portion of the healthy structures—here is what we obtain: for very limited encephaloids, one year to eighteen months without return; for scirrhus, two years; but at the moment of return the evil is still limited, and we may perform a second operation, which still gives two years of life. I have even performed, for a patient of this kind, three operations every two years. The patient lived eight years, of which she had been under treatment six months for her three operations, and nine months during which the scirrhus had ulcerated and produced death. For sarcomata removed in time, I have seen patients four and five years without returns, but for cancers of the lymphatics it is barely more than a year of benefit that we can assure the patients. On the whole, an operation practised in time may gain, in the severest cases, a year of health to the patient, and in the less grave cases three, four, five, and even six years. This is something, and this resource which surgery offers is certainly precious. Who is there amongst us who would hesitate, were this proposed for his wife or his mother? Would you prefer to see one of yours for three years with a fetid ulcer, or see him only one year? Is it nothing to give a woman two years of health and illusion? I have already seen a certain number of times unfortunate women who come to demand an operation that one could not and should not perform for them, and it is because they have

been deceived during the time in which they might have been operated upon, that the surgeon was disarmed; and I have deplored our powerlessness to put patients on their guard against those who abuse them.—*Gaz. des Hop.*

COTTON-WOOL AS A VEHICLE FOR MEDICATING THE NASAL REGION.

BY EDWARD WOAKES, M.D.

Senior Surgeon to the Hospital for Diseases of the Throat and Chest.

The method of applying medicated wool to the post-nasal space is very simple, and can be improvised under almost any circumstances. It is as follows: The quantity of wool determined upon, usually from two to three grains by weight, is twisted spindle-shaped, but loosely, upon a piece of thread or silk; the thin ends are brought together, and tied with a knot; thus the spindle-shaped pledget of wool is doubled upon itself, and secured firmly to the thread, having now a pear-shape, the stalk being represented by the thread. A blunt probe is engaged in the wool, and made to conduct it along the floor of the nose to the spot where it is to be retained. The process is then repeated on the other side, the threads from each pledget hanging out from either nostril. These are now tied together below the septum, by which means the patient will be assured the wool will not be swallowed. In the morning, supposing the application to be made overnight, they can be withdrawn by pulling on the threads. In this way any drug that may be selected can be introduced with ease, and with a little skill in the manipulation the vault of the pharynx, Rosenmüller's fossa, or the neighbourhood of the Eustachian tubes, may be topically medicated. If desired, several such pledgets may be introduced in succession, until a sufficient quantity has been placed *in situ*; the threads belonging to all can then be tied together, and secured.

The above process is so simple that I ought perhaps to apologise for dwelling on its details. It has, however, a practical bearing, inasmuch as it enables the patient to see for himself that the wool is withdrawn.

There are other advantages attending this use of medicated cotton-wool irrespective of

the special virtue of the drug employed. Thus it absorbs discharge, and where necessary disinfects it. Further, when placed in the nasal menti (for which purpose it is unnecessary to attach it to a thread, as it will remain where it is placed), it exerts a beneficial mechanical support to the erectile-tissue-like arrangement of the vessels supplying the mucous membrane of the turbinated bones. It is this peculiar vascularity of the part which admits of the great swelling and profuse discharge often seen to occur quite suddenly in some patients. When the vessels of this structure have been repeatedly congested, their tendency is to remain permanently swollen, and against this issue the pressure exerted by the cotton-wool affords a curative influence, quite irrespective of the therapeutic action of the drug with which it is charged.

As my object in this communication is not to write a treatise on nasal therapeutics, but simply to place in the hands of the profession a ready method of carrying into effective practice the remedies they may themselves select, the further object of this communication will be answered by a brief statement of the formulæ of proved efficacy for the purposes in view.

Besides the iodoform wool already some time in use, the following will be found of most frequent utility:

ASTRINGENTS.

Perchloride-of-iron Wool.—Cotton-wool, one drachm; glycerine, ten minims; tr. fer. perchlor., one ounce.

Tannin Wool.—Cotton-wool, one drachm; glycerine, ten minims; tannin, one drachm; rectified spirit, six drachms.

Alum Wool.—Cotton-wool, one drachm; glycerine, ten minims; alum, half a drachm; water, one ounce.

Rhatany-Kino-Catechu Wool.—Cotton-wool, one drachm; glycerine, ten minims; tr. catechu, vel kino, vel rhatany, one ounce.

Hamamelis Wool.—Cotton-wool, one drachm; glycerine, ten minims; tr. hamamelis, half an ounce.

ANTI-CATARRHAL.

Cubebæ Wool.—Cotton-wool, one drachm; glycerine, ten minims, tr. cubebæ, one ounce.

ANTISEPTIC, DISENFECTANT, AND STIMULANT.

Camphor Wool.—Cotton-wool, one drachm ; glycerine, ten minims ; æth. rect., one ounce.

Boric or Boracic Wool.—Cotton-wool, one drachm ; glycerine, ten minims ; boric acid, one drachm ; sp. vin. rect., six drachms.

Iodine Wool.—Cotton-wool, one drachm ; glycerine, ten minims ; tr. iod., half an ounce.

SEDATIVE.

Opium Wool.—Cotton Wool, one drachm ; glycerine, ten minims ; tr. opii, half an ounce.

General directions.—Mix the glycerine with the tincture or other solvent, saturate the wool with the liquid, and dry.

Since writing the above, I have had some preparations of salicylic and carbolic acid made on the same principle, but have as yet no experience of their usefulness to report.—*London Lancet*.

INEQUALITY IN THE LENGTH OF THE ARMS, WITH THE REPORT OF A SUIT FOR DAMAGES.

BY ISAIAH H. WHITE, M.D.,

Surgeon St. Paul's Church Infirmary for Women, Richmond, Va.

February 5th, 1880, Martin, while crossing the tract of the Richmond and Petersburg Railroad, was run into by a passing train, the locomotive striking the rear of the waggon, and throwing him from his seat, alighting on his hands with arms extended.

Dr. S. L. Ingram, of Manchester, Va., who examined him soon after the accident, could discover no luxation, fracture, or other serious injury. Martin subsequently claimed that he was unable to work, that he was seriously and permanently injured in the left shoulder, and that the left arm was shorter than the right, and sued the railroad company for five thousand dollars damages.

The case was tried May 10th and 11th, 1880, before Judge Weisiger, at Chesterfield C. H., Va. I was summoned as an expert by the defendant, and stated that, on May 8th, I had examined the plaintiff at the request of Dr. Ingram, and found all the motions of the left shoulder joint, the part claimed to be injured, perfect, no callus, deformity, or other evidence of fracture, either of the humerus or scapula ; the head of the humerus forced into the glenoid

cavity elicited no pain ; standing with both arms extended in the horizontal position, the right arm showed signs of fatigue before the left, being left-handed. On measuring from the tip of the acromion process of the scapula to the olecranon process of the ulna, the forearm being flexed at a right angle to the arm, the left humerus was found to be three-quarters of an inch shorter than the left.

Recollecting an article in the *American Journal of Medical Sciences*, January, 1877, by Dr. Wm. Hunt, on "The Inequality of the Length of the Lower Limbs," I determined to ascertain if this asymmetry did not obtain in the upper as well as the lower extremities. With this view I measured the arms of Dr. Ingram, and of another gentleman who was present at the time, and found inequalities in each. Dr. Ingram further examined mine, and found the left shorter by half an inch. (Since then I have examined the arms of several persons, and found inequalities in each, in some cases amounting to three-fourths of an inch.)

I gave as my opinion that the plaintiff had sustained no serious injury by the accident, and that the inequality in the length of the arms was natural, and not the result of injury. A verdict was rendered for the defendants.

This case is reported for the purpose of calling attention to the want of symmetry in the upper extremities, with the hope that some one will pursue the subject with the same care that Dr. Hunt has given to the inequality of the length of the lower limbs.—*Southern Clinic*.

MALIGNANT DISEASE OF THE LIP—RULES FOR OPERATING.—Dr. T. A. McGaw (*Trans. Amer. Med. Association*, 1878), in a paper on the treatment of growths, gives the following rules for operating on the lip : (1) Every wart on the lower lip of persons over forty years old, and every non-syphilitic ulcer which does not speedily yield to treatment, should be regarded as cancerous. (2) The proper remedy in all cases is excision, performed according to Thiersch's law, viz., to cut at least one and a half centimetres from the edge of the cancer, regardless of the shape or extent of the resulting wound. (3) The submental lymphatic glands should in every case be thoroughly

examined. This can best be done by careful exploration of the floor of the mouth between two fingers, one inside and the other out. Whenever there is the least suspicion of glandular implication the thick submental integuments should be cut through, in order that the fingers may explore directly the condition of the tissues. (4) All enlarged lymphatics, and the sub-maxillary gland when adherent to the lymphatics, should be removed. When necessary, the incision should be extended to permit free access to the glands in the carotid regions. (5) When the periosteum is involved the bone should be thoroughly scraped; when the bone is affected it should be excised. (6) After the operation is finished, and not before, the surgeon may direct his attention to the plastic operation necessary to cover all defects. —*Detroit Lancet*.

ON A NEW METHOD OF ARRESTING GONORRHEA.—I read with great pleasure the article headed as above by Mr. Cheyne, and wish to state that I have adopted his method of passing medicated bougies up the urethra for acute and chronic gonorrhœa. The bougies I used were made by Kirby & Co., 14 Newman Street, Oxford Street. The other day I thought I would use iodoform in the shape of a bougie. I therefore ordered some containing five grains in each, and have been very gratified with the result, which has quite come up to my expectation. I have been in the habit of using iodoform, both in the form of ointment and of powder, for some years, and with marked success, in the treatment of indolent varicose ulcer of the leg, soft chancres, etc. The method I adopt in the treatment of gonorrhœa is this: I first order the patient an injection containing ten minims of liquor plumbi and two grains of sulphate of zinc to an ounce of water, to be used frequently until the acute symptoms have subsided. I then pass a No. 9 bougie up the urethra as far as the ulcerated spot. I then apply a piece of lint over the orifice of the urethra, under the prepuce, and tell him not to pass his urine for some hours afterward. I order him to take as little liquid as possible and no stimulants. I generally pass one or two bougies a day. My patients generally get

rid of the gonorrhœa in a week. The only constitutional treatment I adopt is a brisk purgative, followed by tonics.—*British Medical Journal*.

THE JOINT ADMINISTRATION OF CUBEBS AND COPAIBA.—In Gonorrhœa I have long wondered why these two drugs are not more frequently given in combination than as yet appears to be the case. It is true that such a preparation is extensively advertised by a wholesale house; but in my experience, this mixture, besides being expensive, is so nasty, that patients commonly prefer the complaint, as the least of two evils. If an emulsion of oleum copaibæ and liquor potassæ be made in the ordinary way, and oil of cubebs then shaken up with it, the latter is readily held in suspension. I append a formula, which in my hands has been of great service, which is not particularly unpalatable. R. Olei copaibæ, olei cubebæ, āā ʒij; liquoris potassæ ʒiijss; tincturæ aurantii ʒiij; syrupi simplicis ʒij; aquam menthæ piperitæ ad ʒviij. M. Fiat mistura, cujus capiat ʒj ter quotidie.

I may add that liquor potassæ permanganatis (ʒiij ad aquæ ʒvj) appears to me by far the best injection, and has the great advantage of being serviceable all through the acute stage of gonorrhœa. It should be used very frequently; and subsequently, a little zinc sulphate may be added with benefit.—*Herbert L. Snow, M.D.*, London, in *British Medical Journal*.

INCONTINENCE OF URINE.—Dr. Manual Estrada (*El Medico y Cirujano Centro Americano*, No. 2) relates a case of incontinence of urine in a child three years of age, with whom various remedies had been tried and failed. A careful examination of the external organs of generation showed that the labia minora had become united, and had sealed up completely the orifice of the vagina, leaving, however, the meatus urinarius free. The labia having been divided with a bistoury, it was then found that the hymen consisted of muscular fibres, extending in a direction from below upwards, and intercrossed. Their action would be to draw the urethra downwards, and in this way to exercise traction on the trigone of the bladder, with the result of causing irritation,

and probably incontinence. The treatment, which was perfectly successful, consisted in dividing the parts freely, and fastening them back with sutures to prevent reapposition. The author calls attention to the necessity of examining the external organs of children carefully in all cases of incontinence of urine, where the usual remedies have failed.—*London Medical Record, June 15th, 1880.*

SUGGESTIONS FOR TREATING SWOLLEN FINGERS.—A correspondent writes to the *Medical Times and Gazette*, London: Allow me to suggest to your readers the use of the material in the treatment of the swellings of the fingers, which are often tedious and painful, in persons of rheumatic or gouty constitution. For two or three years past I have used a piece of India-rubber finger-stall in fissures and slight cuts of the fingers; and for twelve months or more I have used it in cases of thickening or deposit around the joints of the finger after injury, with great relief to the patient. It has seemed to me that the brown finger-stalls of pure rubber are better than the black or vulcanized. A piece of tubing may be cut into lengths of about an inch or an inch and a half. One of these can be slipped over the joint by the patient himself, after he has been taught how to do it. It should be worn constantly, day and night. The patient will soon learn to roll it off, and reapply it after washing his hands. When it has become too loose to give the necessary support, another length can be taken.—*Med. and Surg. Reporter.*

NERVE STRETCHING IN TABES DORSALIS.—Dr. Langenbuch, of Berlin, reports a case of tabes dorsalis cured by stretching the sciatic nerves. The patient had the symptoms well marked, and suffered intensely from pains, especially in the region of the sciatics. The left was first operated upon. Motor and sensory paralysis followed, but disappeared in a few days. There was no pain from the moment of the operation. Twelve days after the right sciatic, and both crural nerves were stretched and with the same results. The patient's first attempts at walking were feeble and incomplete, but improved rapidly; the ataxic symptoms had disappeared. Antiseptic precautions were observed in the operations, and are said to be absolutely necessary for success.—*Chicago Medical Review, from Berlin. Wochenschrift.*

Midwifery.

PHANTOM TUMOUR SIMULATING PREGNANCY IN AN ASS.

The Rev. Dr. Haughton made a communication on a case of phantom tumour simulating pregnancy in one of the lower animals, and he hoped that a careful study of the phenomena in this case might help towards the more philosophical study of what occurred in the human female, as the mental disturbance, so large a factor in our notion of the phenomenon as it occurs amongst women, would be almost or altogether eliminated. Having purchased a fine specimen of a rare variety of zebra, he was anxious to provide a suitable partner for him; he therefore obtained a healthy three-year old virgin ass. It was necessary to have a virgin, as it was known that the first intercourse gave a stamp to the subsequent progeny. Frequent and apparently satisfactory intercourse took place between the two. The ass came into season at intervals of five weeks, and remained so from ten to fourteen days, and its period of utero-gestation was eleven months. It was therefore easy to discern when the animal was in foal. After six weeks, the ass began to enlarge visibly, and a man much accustomed to the breeding of horses declared that he could "feel the foal inside her." The eleven months expired, and the ass came into season again without having given birth to a foal. After a lapse of four months, she was again given the zebra, and again she swelled, continued so for eleven months, and again gave birth to nothing. In this case, he considered that the mental element might be disregarded, for the ass could have no object in deceiving the zebra. It was at first thought possible that she had aborted in the night and eaten the foetus; but the most careful search showed not a trace of such an occurrence. On each disappearance of the swelling, her abdomen returned to its normal size in one day.—Dr. McClintock thought that it was not by any means impossible that something analogous to a psychological element might have operated in the case mentioned. Brutes had far more feeling and intelligence than they were usually given credit for, and a

very strong feeling accompanied sexual intercourse in them.—Drs. Denham, H. Kennedy, MacSwiney, and the President also took part in the discussion. In reply to Dr. McClintock, Dr. Haughton stated that he had no doubt that what the ancients called *στοργή*, the maternal instinct, was present, and that the ass's illusion of being in foal influenced her physiological condition; for her mammary glands were enlarged, and when the supposed pregnancy was over they subsided with the abdominal enlargement.—*British Medical Journal*.

ABORTION—ALUM EGG.

R. W. Griswold, M.D., President Hartford County (Conn.) Medical Association, communicates the following:—

For the last twenty years my reliance (in flooding) has been on a junk of alum in the vagina. If this is not at hand, I take the next best thing that is; but a junk of alum is a part of the contents of my medicine-box. It is of the size of a large hen's egg, ovoid in shape, and generally left a little ragged, though without sharp points. Around the middle is cut a groove, about which is tied a bit of strong but not large twine, leaving the ends so that they can hang out of the vagina. No preparation is necessary, nor any exposure of the person needed. The egg is introduced end-way, turned half around, so as to bring the long diameter across the vagina, and pushed downward and then upward against the os. In some cases, especially if the canal is large, I back the egg with sufficient packing to secure its retention in position. If the vagina be small and close, there may be no need at all of the supplementary support.

This treatment is easy, speedy, and effectual against further hemorrhage. It has never failed me, and I leave the patient with the feeling that she is safe for the next twelve or fifteen hours, so far as danger from further bleeding is concerned. And I may add that I have never had any unfavourable effects follow its use in any one of the score of cases in which it has been employed—no fevers, no septicæmia, no deaths, no anything untoward—and I have never had occasion to use it the

second time in any one case. It can be removed when desirable, either by traction on the cord, or by the introduction of the fingers, the coagulated blood fished out, the vagina syringed, and the case further treated as circumstances may require.—*Louv. Med. News*, April 3.

TANNIN LOCALLY IN PROLAPSUS UTERI.

Dr. G. P. Hachenberg reports several cases of the use of this remedy in prolapsus uteri, where other means had failed to afford relief. His method is as follows: A glass speculum is introduced into the vagina, so as to push the uterus into its place. Through the speculum a metallic tube or syringe, with the end containing about thirty grains of tannin, is passed. With a piston the tannin is pushed against the uterus, the syringe withdrawn, and the packing neatly and effectually completed, with a dry probang, around the mouth and neck of the womb. After the packing is completed, the probang is placed against the tannin, in order to hold it, and the speculum is partially withdrawn. The packing is now fully secured, and the instrument removed.

The application of tannin holds the uterus firmly and securely in place, not by dilatation of the walls of the vagina, but by corrugating and contracting its parts. At first the application may be made weekly; finally, but once or twice a month. It not only overcomes the hypertrophy and elongation of the cervix, but even, the writer thinks, induces a slight atrophy of the parts. As a remedy for leucorrhœa, where the seat of the inflammation is at the mouth of the womb, or within the vagina, it actually gives speedy relief. The doctor also reports a case of chronic ulceration of the rectum which was cured after a few weekly packings of tannin.—*Med. Record*.

THE ADMINISTRATION OF ERGOT IN LABOUR.—Dr. Glynn Whittle (*Dublin Journal of Med. Sci.*, February, 1880) thinks that there is no doubt that ergot judiciously administered will save a lying-in woman from the necessity of a forceps delivery. If there is reason to fear post-mortem hemorrhage, ergot should always

be given before the child is born. The fifteen to thirty-minim range of the Pharmacopœial liquid extract is practically useless, but there is a limit to the dose which it is desirable to give. Two fluid drachms may be mentioned as a maximum, but occasionally it is justifiable to repeat this quantity. Dr. Whittle also lays down the following rule in regard to the administration of ergot: Never administer ergot until the labour is so far advanced that it could, if necessary, be easily finished with the forceps. In cases where tonic uterine contraction follows, threatening the life of the child, but not terminating the labour, recourse may then be had to the forceps. If the placenta happens to be morbidly adherent, the danger of the complication may be greatly augmented by post-partum increased uterine contraction, due to the influence of ergot, and of such a case Dr. Whittle quotes an instance which occurred in his own practice.—*Practitioner*, May, 1880. *Monthly Abstract*.

Translations.

IODIDE OF STARCH AS AN ANTIDOTE TO VARIOUS POISONS.

In a paper read before the Medical Society of Florence, Bellini recommends the iodide of starch as an antidote for poisons in general. The absence of disagreeable taste and irritating properties allows this compound to be administered in large doses.

This antidote is above all efficacious in poisoning by sulphuretted hydrogen gas, by the alkaloids and the alkaline sulphides, by ammonia, and principally by the alkaloids with which iodine forms an insoluble compound. In this respect it is preferable to the tincture of iodine. It aids the elimination of the salts of lead and mercury. In cases of acute poisoning an emetic must be administered before the iodide of starch.—*La France Méd.*

VERMINOUS AFFECTION.—The *Union Médicale* of May 18th, 1880, contains a detailed account of a case in which a boy twelve years of age, in the course of three years, passed more than five thousand lumbricoid worms, the greater number by vomiting.

TONIC PREPARATION OF GLYCERINE TO SUPPLY THE PLACE OF COD LIVER OIL.—(LARMANDE.)

Some patients absolutely refuse to take cod liver oil, which causes them to lose their appetite. In these cases we may have recourse to the employment of glycerine internally, employment which is too much neglected, and which is called to render services of all kinds. Dr. Larmande makes use of the following formula:

Pure glycerine . . . 300 grammes . . . oz 9
Tinct. of iodine . . 30 drops . . . drops 30
Iodide of potassium 30 centgs . . grains 5

Tablespoonful a quarter of an hour before each meal. The appetite soon returns, and constipation, when there is any, ceases absolutely. For delicate persons this formula must be modified a little by adding to it some syrup of raspberry:

Pure glycerine . . . 250 grammes . . . oz 8
Syrup of raspberry 30 “ . . . oz 1
Iodide of potassium 30 centgs . . . grs 5
Tinct. of iodine . . 30 drops . . . drops 30

Tablespoonful before each meal.—*Le Prog. Méd.*

FORMULE FOR CHIAN TURPENTINE.

I.

Solut. Terebinth Chiens Alcohol (1:1) ʒss.
Mucilag. Tragacanth ʒiv.
Syrup ʒi.
Sulphur Sublimat gr40.
Aq. ad ʒxvi.
M. Dose, ʒi three times daily.

II.

Pulv. Amygdal Co.
Sol. Terebinth Chiens (1:1) āā . . . ʒss.
Spt. Chloroformi ʒiv.
Sulphur Sublimat gr40.
Aq. ad ʒxvi.

III.

Terebinth Chiens ʒi.
Alcohol ʒii.
Acaciæ pulv. ʒi.
Pulv. Glycyrrhizæ rad. ʒi.
Confect. rosæ ʒi.
M. Dose, ½ to 1 teaspoonful.

—*New Remedies*.

POMADES OF IODOFORM.

Iodoform may be employed in the form of pomade against orchitis, strumous adenitis, and soft or indurated chancres. Kurz employs it in the following form :

Iodoform 1 part.
Glycerine..... 10 parts.

But there remains a very disagreeable odour. Lindmann masks this odour by means of two parts of balsam of Peru for one of iodoform. He recommends the following formula :

Iodoform 1 part.
Balsam of Peru..... 3 parts.
Vaseline 8 “

The eight parts of vaseline may be replaced by twelve parts of alcohol, or glycerine, or colloidion.

The iodoform is first intimately mixed with the balsam of Peru, then the other substances are added.—*La France Méd.*

PASSAGE OF THE FÆTAL HEAD THROUGH THE CONTRACTED SUPERIOR STRAIT IN BREECH PRESENTATIONS.—(CHAMPETIER DE RIBES.)

The extraction is considerably facilitated by the following two manœuvres :

1. By pushing directly backwards into the concavity of the sacrum, that side of the base of the neck which is found descended behind the symphysis pubis, and which is seized between the index and medius as in a fork.

2. By causing an assistant to make expression bearing on the frontal region of the fœtus, with the palm of the hand which embraces this region and lowers it, following the direction of the axis of the superior strait.—*Gaz. Méd. de Strasbourg.*

EUCALYPTUS IN CORYZA—RUDOLPHI.

After numerous experimental trials upon himself and others, Dr. Rudolpho Rudolphi recommends the eucalyptus globulus as a useful remedy for the rapid cure of acute coryza. A small quantity of the dry leaves of the eucalyptus is chewed, and the saliva slowly swallowed. The coryza is promptly ameliorated, and, indeed, often dissipated in the space of half-an-hour. This means is only successful in the case of acute coryza.—*L'Union Médicale.*

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.

TORONTO, OCTOBER, 1880.

IMPORTANT AND IMPORTUNATE NOTICE.

Subscribers in arrears will greatly oblige us by cancelling their indebtedness as soon as possible. It costs money to publish a Medical Journal, and the annual subscription asked from each individual, by itself small, becomes, when numbers are in arrear, an important consideration to us. The moral of the above is, “Pay up.”

MALTOPEPSYN.—As will be seen by the insert in this number, Mr. Hazen Morse, of 57 Front Street East, Toronto, has placed upon the Canadian market a new preparation of pepsine, for which he claims better results therapeutically (at less than half the price) than can be obtained from any other good preparation of pepsine on the market. Mr. Morse is also selling a preparation of cod liver oil, called “Hydroleine,” a partially digested oil, palatable and more easily assimilated than the pure oil. The formula is published in the advertisement, and the names of several well-known and eminent physicians in Canada given as references. For further information we need only refer our readers to the advertisement.

CANADA MEDICAL ASSOCIATION—Exhibit of Reed & Carnrick's Maltine and the New York Pharmacal Association's Lactopeptine. — As usual, these enterprising New York firms were on hand at Ottawa with samples of these well-known and useful preparations, now so extensively used in the practice of Canadian physicians. We have prescribed them with gratifying results.

PERSONAL.—We regret to hear that the Toronto Asylum for the Insane is shortly to lose the services of one of its medical staff, Dr. C. K. Clarke, who has been appointed to the Hamilton Asylum. We join our good wishes to those of all who know him, for his success and happiness in his new appointment. Dr. T. S. Covernton, of the Hamilton Asylum, succeeds Dr. Clarke, and will be equally with the latter regretted by those whom he leaves, and welcomed by those he joins.

TROMMER'S EXTRACT OF MALT.—Through their active agent, Mr. R. L. Gibson, this firm was again represented at the meeting of the Canada Medical Association at Ottawa, and had on exhibition samples of their popular Malt Extract and its combinations. (See their advertisement).

Meetings of Medical Societies.

CANADA MEDICAL ASSOCIATION.

THIRTEENTH ANNUAL MEETING.

The thirteenth annual meeting of the Canada Medical Association was held at Ottawa on September 1st and 2nd, in the Railway Committee Room, House of Commons, and was well attended by members from Ontario, Quebec, and the Maritime Provinces—delegates from the American Medical Association being also present. These were Dr. Brodie of Detroit, Dr. Brush of Utica, N.Y., and Dr. Goodwillie of New York. A large number of new members were elected.

Dr. MULLIN of Hamilton presented the report of the Committee on Fees, recommending that the annual fees should not be increased, and that their payment should only be insisted upon from members present at the meeting. The report was, after a good deal of discussion, adopted.

Dr. GARDINER presented an able and interesting report of the Committee on Obstetrics and Gynæcology, referring to the progress made in these branches and the recent additions to the literature.

Dr. BOTSFORD of St. John, N.B., reported on Sanitary Science, urging the importance

of sanitary legislation, and calling attention to the evils arising from the Dominion Parliament's position of masterly inactivity in the matter. The necessity of a thorough system of registration and vital statistics was insisted upon, and the benefits that would ensue upon the adoption of such legislation pointed out.

Dis. BRODIE (Detroit), PLAYTER and WORKMAN (of Toronto), and SWEETLAND and GRANT (of Ottawa) endorsed the views of Dr. Botsford.

Dr. OSLER of Montreal read a paper on "Progress made in Pathological Enquiry," which was received with great applause.

Notice of the following papers had been received, some of which we hope to print in our future issues:

Surgical.—1. On Brain Lesions, Dr. D. Clark, Toronto; 2. Cases of Plastic Operations on Eyelids, Dr. R. A. Reeve, Toronto; 3. Surgical Treatment of Laceration of the Cervix Uteri, Dr. T. K. Holmes, Chatham; 4. A Case of Disease of the Elbow Joint, with Resection, Dr. W. Caniff, Toronto; 5. Fibroid Tumour of the Bladder, Dr. J. Fulton, Toronto; 6. On Medullary Cancer of the Liver, Dr. W. C. Covernton, Toronto; 7. —, Dr. Ryerson, Toronto.

Medical.—1. Contributions to Localization of Cerebral Diseases, Dr. Workman, Toronto; 2. (a) A Contribution to the Question of Spinal Paralysis; (b) Demonstrations of a Series of Specimens Illustrating the Morbid Anatomy of the Brain and Spinal Cord, Dr. OSLER, Montreal; 3. The Discarded Practice of Venesection, Dr. Hill, Ottawa; 4. Pseudo Hypertrophic Muscular Paralysis—exhibiting the patient, Dr. J. Fulton, Toronto; 5. The Gymnastics of the Brain, Dr. J. A. Grant, Ottawa; 6. The Preventive Treatment of Hemicrania by Cannabis Indica, Dr. J. Stewart, Brucefield; 7. On the Use of Alcohol in Pneumonia, Dr. L. C. Prevost, Ottawa; 8. Tea as a valuable Therapeutic Agent, Dr. J. A. Sewell, Quebec; 9. Loose Kidney, Dr. W. Marsden, Quebec; 10. On the Beneficial and Toxic Effects of the various Species of Rhus, Dr. T. J. W. Burgess, London.

On Wednesday evening, the medical profession of the city and Ottawa Valley gave a dinner, at the Russell House, to the Association; Dr. Hill of Ottawa occupying the chair, and Drs. Cranston and Robillard the 1st and 2nd Vice-chairs. Over a hundred were present at the dinner, and did full justice to the sumptuous repast provided by Mr. Gouin. The band of the G. G. F. G. gave a number of choice selections during the evening. The usual loyal and patriotic toasts were given and duly honoured. Dr. Howard of Montreal responded in his usual graceful manner to the toast of "The Canada Medical Association and

its President," Drs. Mostyn and Rottot to that of "The Ontario and Quebec Medical Councils;" and Dr. Grant to that of "The Medical Professions."

Drs. Brodie of Detroit, Hingston of Montreal, Botsford of St. John, and Mayor Macintosh of Ottawa returned thanks for the toast of "Our Guests."

Mr. Lash, Deputy Minister of Justice, and Mr. McLeod Stewart responded for "Our Sister Professions."

Drs. Ross, Clarke and Sullivan spoke on behalf of "Our Educational Institutions."

SECOND DAY.

The PRESIDENT presented a report from Dr. Oldright, chairman of the special committee appointed last year to report on the subject of Health Registration, and negotiations with the Dominion Government in relation thereto. The report suggested that a committee, consisting of the President, Drs. Oldright, Grant, Laroque and Botsford, be appointed to continue negotiations with the Government with a view to securing a grant for procuring an effective system of health registration.

The names of Drs. Brouse and Strange were added to the committee and the recommendation adopted.

From the plan submitted it would appear that it was proposed to have a statement made of the number of cases of each disease coming under the notice of the physician reporting, to accumulate facts regarding the peculiar features of the locality, such as the drainage, water supply, topographical features, etc. This information is to be obtained from physicians. A review of the reports received would be issued every two weeks, stating the diseases which were most prevalent in the different localities, and whether the number of cases of the disease had increased or not since the previous report. Special attention would be devoted to pointing out the existence of contagious and infectious diseases, and such information would be given relative to public health as might be considered of service to all interested therein. Copies of this review would be furnished to the Minister of Agriculture, to the Secretary or President of each Medical Society, to the Mayors and Health Officers of each city, town or municipality, as well as to every physician reporting. In cases of an epidemic, special reports could be made. An annual report would be prepared for the information of the Government, which would contain a digest of the reports received during the year, and disease charts might also be prepared to accompany this report, showing the most prevalent diseases in the different

localities. The data contained in the reports would also be compared with the meteorological returns, so that the influence of the weather might be investigated. Valuable results would be derived from the returns in the procuring of information relative to the nature of the diseases pervading the different localities, the best neighbourhoods for parties predisposed to particular diseases to resort to, the probability of attack, recovery or death from the different diseases in the various stages of life, the influence of weather on health, etc. It would also lead to the adoption of preventive measures, etc. This scheme would cost \$5,000.

A most interesting and instructive feature of the meeting was the exhibition, by Dr. Osler, of a series of specimens, microscopic and macroscopic, illustrative of the morbid Anatomy of the brain and spinal cord.

Brain.—1. Section of brain (made with Dalton's section-cutter), showing large apoplectic clot *in situ*. 2. Haemorrhagic softening, probably from embolus. 3. Cortical softening from hæmorrhage of traumatic origin. 4. Apoplexy of pons. 5. Cicatrix of apoplectic clot in cerebellum. 6. Abscess in left temporo-sphenoidal lobe. 7. Embolism of left middle cerebral artery. 8. Aneurism of left middle cerebral artery. 9. Miliary aneurisms on small cerebral arteries. 10. Coarse tubercle of brain. 11. Section of coarse tubercle of brain. 12. Miliary tubercles on small arteries. 13. Syphilitic arteritis. 14. Glioma of corpus striatum. 15. Pachymeningitis. 16. Insular sclerosis. 17. Medullary neuroma. 18. Pigmentary degeneration of cerebral vessels.

Cord.—19. Locomotor ataxia, posterior spinal sclerosis. 20. Descending degeneration of crossed pyramidal column. 21. Antero-lateral sclerosis. 22. Ascending degeneration of posterior median columns. 23. Annular myelitis. 24. Lateral sclerosis. 25. Tumour, probably syphilitic, of the cord.

A printed catalogue, with a brief description of each specimen shown, was distributed, and enabled all to understand and appreciate the exhibit.

We regret that space does not permit us to publish in full the masterly address of the talented President. He referred with pride to the high standard of medical education required in the different Provinces, comparing it favourably with that of Great Britain, and alluded to its vast superiority over any in the neighbouring republic. Allusion was also made to the part the Canada Medical Association had taken in securing a high standard of medical education in Canada. The importance of State medicine, public hygiene, the registration of births, marriages and deaths, and of infectious diseases was dwelt upon, and the probability

of the Government assisting in establishing such much-needed reforms was spoken of.

Dr. HOWARD next took up the great question of Inebriety and Inebriate Homes, and gave it as his opinion that an Act similar to that passed in Nova Scotia a few years ago should be passed in all the Provinces. The Nova Scotia Act reads :

"A creditor may petition, as well as relatives or friends, against an habitual drunkard. When interdiction is pronounced, the judge directs him to be placed and detained in an inebriate asylum until he is declared by the officials to be cured, and fit to be let at liberty. The managers of the asylum or inebriate home have control of the interdicted person in all respects, and "should he escape from their charge they can arrest him without process of law and convey him back to the institution."

Another, perhaps equally required, is an "Habitual Drunkards' Act," like that which was passed in England last year. It provides that an habitual drunkard may voluntarily apply for admission to an inebriate home or retreat, for a period not exceeding twelve months; that his application must be attested by two Justices of the Peace, after they have satisfied themselves that the applicant is an habitual drunkard, and have explained to him the effect of his admission to a retreat; and that the applicant must submit to the necessary restrictions and treatment of the retreat which he enters. The British statute meets a difficulty which has operated more than any against the full success of institutions for the cure of inebriates, for it prevents the victim from removing himself from restraint and supervision when he fancies himself able to control his craving for strong drink, or regrets that he has voluntarily submitted to the restrictions of a retreat. Another condition necessary to the success of the benevolent object we are considering is the giving of a liberal sum of money by the Dominion Parliament—or the Provincial Parliament, if it more properly appertains to them—to maintain inebriate homes in the several provinces.

It was urged, too, that a portion of the revenue derived from the customs and excise on liquors should be devoted to this purpose, as is done in Brooklyn, Chicago, and Minnesota.

The matter of experts at Coroners' Inquests was next discussed, and the propriety of the Government employing skilled pathologists to conduct or assist in conducting *post mortems* at coroners' inquests and similar judicial enquiries was urged upon the attention of the Association.

Central and Provincial Boards of Health was the next topic of the address,

Dr. HOWARD said . . . If it be true that under confederation the care of the public health is a function of the Provincial Legislatures, and beyond the power of the Dominion Government, then it appears to me that the first step to be taken should be to establish a central or national Board of Health, to which should be assigned, amongst other duties, the preparing a comprehensive plan for a national public health organization, to be submitted to the Federal and the Provincial Legislatures for their approval: the obtaining information upon all matters affecting the public health; the advising the several departments of the Government, and the executives of the several Provinces, on all questions submitted by them, or whenever, in the opinion of the Board, such advice may tend to the preservation and improvement of the public health; the securing the establishment of a Board of Health in each Province, whose functions shall be performed in accordance with the plan prepared by the Central or National Board; the guiding, advising and assisting the Provincial Boards, and securing their co-operation in the obtaining of regular periodical reports upon all matters of State medicine; the combining and summarizing in annual reports all the information and facts contributed by the several Provincial Boards of Health, and by any other municipal health organizations or other source. The Central Board should probably consist, as suggested by Dr. Richardson, of a physician, a surgeon, a physician with practical experience as a health officer, a chemist, a veterinarian, a statistician, a sanitary engineer and architect. These should all be men of first-rate qualifications, and should receive compensation during the time when actually engaged in the performance of their duties, and if the President of the Board were given a seat in the Cabinet, as Mr. Stansfeld was in Mr. Gladstone's last Administration, and as Mr. Dodson has been in the existing Administration of the same distinguished statesman, then the influence and usefulness of the National or Central Board of Health would be greatly increased and its success secured.

An eloquent address was closed by a reference to the good work done by the Association in the past and to the great opportunities and bright prospects in the future. Thanks were tendered to the American Medical Association for their continued courteous attention to delegates attending their meetings, and also to the National Board of Health, U.S., for sending to the President their official journal, the *Bulletin*.

The Association then divided into sections—the Medical with Dr. Macdonald, Chairman, and Dr. Ross, Secretary; and the Surgical with

Dr. Canniff, Chairman, and Dr. MacDougal, Secretary—when the papers mentioned above were read and elicited interesting discussions.

AFTERNOON SESSION.

The Association met again at three o'clock, when, after the transaction of formal business, it was moved by Dr. FULTON, seconded by Dr. BRAY, "That the following committee be appointed to consider the propriety of adopting some uniform system of classification of disease for the guidance of the profession in Canada, and report at the next meeting of this Association, viz.:—Drs. Workman of Toronto, Ross of Montreal, Macdonald of Hamilton, Atherton of Fredericton, N.B., and Parker of Halifax." Carried.

The Association then resumed the session in sections.

Among so many excellent papers it would seem almost invidious to single out any for special notice. Dr. Grant's, on Gymnastics of the Brain, dealt with the evils of too early education in ill-ventilated and crowded school-rooms, the folly of the system of cramming, and hot-house vegetation. Drs. Brodie, D. Clarke, Botsford, Campbell, Burgess, Workman, Bray and Macdonald took part in an animated discussion on this paper, and for the most part coincided with the views of the reader.

After further discussion it was moved by Dr. BRAY, seconded by Dr. BURGESS, "That the principles embodied in Dr. Grant's paper are approved of by this Association, and are well worthy of the consideration of the educational authorities of the Dominion." Carried.

During the course of subsequent discussion, participated in by Drs. Hingston of Montreal and Sweetland of Ottawa, it was suggested that the secular newspapers be requested to publish the paper just read. The Association resumed its session at nearly six o'clock.

Moved by Dr. OSLER, seconded by Dr. SHEPPARD, "That the time allowed in future, except under special circumstances as previously arranged for, in which to read a single paper be half an hour." Carried.

Dr. DAVID, the General Secretary, read the report of the Committee on Necrology, which showed that thirty members of the Association, mostly in the prime of life, had died during the year. Two of these were accidentally poisoned and one drowned.

Moved by Dr. HINGSTON, seconded by Dr. SWEETLAND, "That in view of the discussion on over brain work and cramming in schools, elicited by Dr. Grant's very important paper on Gymnastics of the Brain, the following committee be appointed to report at the next meeting of the Association in reference to this

subject: Drs. Grant, Workman, D. Clarke, Hingston, Larocque, Botsford, and Playter." Carried.

Moved by Dr. CANNIFF, seconded by Dr. SULLIVAN, "That it is the opinion of this Association that at the present time there is no subject demanding the attention of the Legislature of this country of greater importance than that of the public health; and in order that Canada may not be behind other countries in this matter, it is very desirable that both the Dominion and Provincial Governments should, with as little delay as possible, legislate and provide means for the better promotion of the public health throughout this Dominion." Carried.

Dr. MARSDEN presented the report of the Nominating Committee, which was adopted.

The next meeting is to be held in Halifax, N.S., on the first Wednesday in August.

The following officers were selected:—Dr. Canniff of Toronto, for President; Dr. David of Montreal, General Secretary; Dr. Robillard of Montreal, Treasurer. For Ontario—Dr. John Mullin, Vice-President; Dr. Adam Wright of Toronto, Secretary. For Quebec—Dr. Fenwick of Montreal, Vice-President; and Dr. Belleau, Secretary. For Nova Scotia—Dr. Parker, Vice-President; and Dr. Lawson, Secretary. For New Brunswick—Dr. J. Christie, Vice-President; and Dr. P. Inches, Secretary.

Committee of Arrangements.—Dr. Parker, Dr. Wickwire, and Dr. Jennings of Halifax, with power to add to their number.

Publications.—Dr. Zimmerman of Toronto, and Drs. Osler and Campbell of Montreal, together with the Secretary and Treasurer.

Practice of Medicine.—Drs. A. Reid of Halifax, Holmes of Chatham, Ont., and Taylor of St. John, N.B.

Surgery.—Dr. Farrel of Halifax, Dr. Sullivan of Kingston, Dr. Brunel of Montreal.

Obstetrics.—Dr. J. Ross of Toronto, R. S. Black of Halifax, and Dr. Henderson, Ottawa.

Therapeutics, etc.—James Stewart, Brucefield; Dickson, Pembroke; Bray, Chatham.

Necrology.—Dr. Iachapelle, Montreal; J. G. Earl, St. John, N.B.; Fulton, Toronto.

Education.—Dr. Bayard, St. John, N.B.; Dr. Robillard, Ottawa; Pickup, Brockville.

Climatology and Epidemic Diseases.—Dr. Playter, Toronto; Dr. Oldright, Toronto; Dr. Larocque, Montreal; Dr. Allison, St. John, N.B.; Dr. Jennings, Halifax.

Ethics.—Dr. Macdonald, Hamilton; Drs. Hingston and Robillard, Montreal; Dr. Parker, Halifax; Dr. Grant, Ottawa; Dr. Botsford, St. John; Dr. Prevost, Ottawa; Dr. D. Clarke, Toronto; Dr. Osler, Montreal; Dr. Sweetland, Ottawa.

Book Notices.

Diagnosis of Malignant Tumours of the Upper Jaw in Youth. By L. McLANE TIFFANY, M.D., Baltimore.

The Vinum Nutrio Phosphaticum. The Orthozoic Chemical Association, 1200 Broadway, New York.

Twenty-second Annual Announcement of the Chicago Medical College for the Session of 1880-'81, with list of its Alumni.

A Case of Adenoma of the Lachrymal Gland, and an improved method of operating in certain cases of Symblepharon. By ADOLPH ALT, Toronto.

First Annual Report of the State Board of Health, Lunacy, and Charity of Massachusetts, 1879—Supplement containing the Report and Papers on Public Health.

Transactions of the American Dermatological Association with the President's Address at the Third Annual Meeting, held at the Park Avenue Hotel, New York, August 26th, 27th and 28th, 1879.

Atlas of Skin Diseases. By LOUIS A. DUHRING, M.D. Philadelphia: J. B. Lippincott & Co. Part vii. contains plates and descriptive text of cases of Eczema (pustulosum), Impetigo Contagiosa, Syphiloderma (papulosum), and Lupus Vulgaris.

Author and publishers continue, in each succeeding number of these chromo-lithographs, their life-like illustrations of skin diseases. Brief but comprehensive and clear descriptions accompany each plate.

The Student's Dose Book and Anatomist Combined. By C. HENRI LEONARD, A.M., M.D., Detroit.

This *multum in parvo* contains in Part First a list of new remedies and preparations: The metric system; List of doses; List of preparations; Pharmaceutical preparations; Rules for pronunciation, and genitive case endings in prescription writing; Incompatibles; Poisons—their antidotes and tests; Urinary deposits

and tests; Obstetric notes; Visceral measurements.

Part Second is the vest Pocket Anatomist, where the whole anatomy of the body is given in 60 pages. The book is in size 6 x 4, and comprises in all 160 pages of matter that should be carried in the practitioner's head and not in his pocket. The work is good of its kind, but we don't like the kind.

The Practitioner's Reference Book. By RICHARD G. DUNGLISON, A.M., M.D. Second Edition. Revised and enlarged. Philadelphia: Lindsay & Blakiston, 1880.

This is another of that class of books designed for the busy practitioner who knows not where to look for information, and very likely fails to profit by it when found. It is a great pity that such men are to be found in the profession. As long as they do exist, books of this type will be forthcoming and find a ready sale. Handy books of the present character tend to increase the number of slipshod, careless practitioners, and cause them to lean more heavily upon such supports, and to rely less upon their own resources. Their influence even upon well-meaning men is baneful.

The book contains a number of good selections and condensations from authors of high repute, and embraces a variety of subjects. Amongst the additions to this second edition of the Reference Book are Diagnostic Tables of Fevers, Acute Pulmonary Diseases, and Diseases of the Larynx and Naso-Pharynx, in which the symptoms of these diseases are clearly arranged and may be easily compared. "How to Use Disinfectants," and "Directions for Preventing the Spread of Infectious Diseases," are excellent, and worthy of close study; after which the book would become of little service to a man of ordinary mental calibre.

The book is made up with good paper; the type is clear and easily read, and we notice but few typographical errors.

Transactions of the American Medical Association, 1879.

We are in receipt of this well-got-up volume for last year. It contains a good deal of the routine work of the Association, which, necessarily, is not of much interest to Canadians,

but, of course, is necessary to our neighbours, to whom the work may be looked upon as a medical history.

Interspersed throughout the Transactions are published papers of considerable value to the profession. It would be only tantalizing to give a synopsis of the most conspicuous of them. These are—"A Report on the Prevention of Bowel Affections, as indicated by a comparison of Clinical and Meteorological Facts relating to their Etiology," by Dr. N. S. Davis, Chicago. "A Report on Electrolysis of Uterine Fibroids," by Dr. E. Cutter, Boston, Mass. "Address in State Medicine and Public Hygiene," by Dr. Billings, U.S. Army. "Address in Surgery and Anatomy," by Dr. M. Gunn, Chicago. A Prize Essay, by Dr. Allan McLane Hamilton, of New York, on "Certain Forms of Primary and Secondary Degeneration of the Lateral Columns of the Spinal Cord." This monograph alone is worth the price of the volume. A short paper on a new form of *Ecraseur* for the removal of Uterine Tumours and a cut of the instrument is given in the Transactions. This instrument is the invention of Dr. William Scott, Woodstock, Ont. It is ingenious, as might be expected, for the doctor has a mechanical turn of mind, and it could not be better employed than in improving surgical instruments. It is a matter for regret that the "Canada Medical Association" is not pecuniarily able to publish its Transactions, for we are convinced that the papers read at our meetings would compare favourably with any in this excellent volume; and in this way our progress in medical research would be known beyond our own boundaries, which, as a rule, is not the case at present.

Reynolds' System of Medicine, with numerous additions and illustrations. By HENRY HARTSHORNE, A.M., M.D. Philadelphia: Henry C. Lea's Son & Co., 1880. Vol. III.

This, the third volume of Reynolds' System, completes the work. The diseases of the digestive, blood-glandular, urinary, reproductive, and cutaneous systems are treated of in the same masterly manner that characterized Volumes I. and II. Wilson Fox, Squarrey, Wardell, Bristowe, Warburton Begbie, Goodeve,

Curling, Ransom, Anstie, Maclean, Gowers, Wilks, Hermann Beigel, Lauder Brunton, Basham, Frederick Roberts, Marcus Beck, William Roberts, Sir H. Thompson, Grailly Hewitt, Priestley, John Williams, and Balmanno Squire contribute articles on diseases to the study of which they have devoted special attention. They are already so widely known and so highly esteemed as authorities upon the various subjects treated of in this volume, that it is almost needless for us to say that the work here is well done. Reynolds' System, as a work of reference in medicine, is unexcelled and unequalled, and should be in the library of every physician. Dr. Hartshorne, the American editor, has contributed articles on cholera morbus, cholera infantum, trichina spiralis, bronchocele, pernicious anæmia, and spermatorrhœa, besides making such additions to many other articles as the progress of medical science since the volumes first appeared, required. The task he undertook has been well performed, and the thanks of all American physicians are due to the American editor for affording them the opportunity of obtaining at a reasonable price such a magnificent cyclopædia of the practice of medicine, embodying as it does the views of the most learned members of the medical profession of Great Britain. We earnestly advise all our readers to buy the volumes and *read them*. It is acknowledged by all whom we have consulted, and who have compared the two works, to be immeasurably superior to Ziemmsen, and has, in addition, the very important merit of being sold at less than one-fifth the price.

First Annual Report of the State Board of Health, Lunacy, and Charity of Massachusetts: 1879.—It is with feelings of melancholy pleasure that we receive these excellent reports: we are glad of the budgets of information they contain, constantly adding to, confirming, or amending our sanitary knowledge; but the marked contrast to the apathy existing in our own otherwise enlightened Province is most painful. The people of our Province shudder at the disregard for life in some of the more new and lawless States, and are horrified when they hear of two or three hundred people

being lost at sea, or killed in a mine, but they look on with apathy at the hundreds among us who are killed annually through legislative and executive neglect of our provincial and municipal authorities, and of the rank and file of the people themselves. This is no exaggerated view of the case, but a true picture of the actual facts. Let us all bestir ourselves to bring about a change.

Year by year the Massachusetts Board is examining the courses of the various rivers and streams, and ridding them of death-dealing pollution. This year we have a report on the drainage of country places and summer resorts, and of the risks of admixture of filth with water supplies: this part of the report is copiously illustrated, the woodcuts appealing in a most striking and graphic manner to otherwise dormant minds. A disquisition on the etiology of typhoid gives a good deal of material in the shape of facts, but not of such a nature as to settle the vexed question as to whether its origin is ever non-specific. "The more human filth, the more chances of typhoid where its other factors are present." "The specific poison maintains its potency for a long time when kept from exposure to air, and may be conveyed long distances in water or milk." "It is destructible readily on free exposure to pure air."

A good paper is given on the prevalence of trichinae in pork. Of the lots examined some had none, in others as high as 13.89 of the hogs were affected. The trichinae is found more commonly in the pillars of the diaphragm than in any other part. All pork should be heated to 104° F. throughout the flesh.

Professor Farlow's paper on some vegetable growths (*celospermum*, *clathrocystis*, *anabaena*, etc.) in water will be of great value to engineers and sanitarians, as dealing with a matter hitherto little known. The medical correspondence tends to show that the "plants act mechanically chiefly, perhaps like unripe fruit, when affecting the health at all, in causing diarrhoea; but that the filtered water is harmless."

We would like to describe more fully some of the papers contained in this report, but space forbids.

A Treatise on Common Forms of Functional Nervous Diseases. By L. PUTZEL, M.D. New York: William Wood & Co.

This new book is one of the 1880 series of Wood's Library. It opens with an admirable account of the Clinical History of ordinary Chorea of Childhood and Adult Age, Chorea Gravidarum, Post- and Pre-hemiplegic Chorea and Athetosis. The last-named affection the author does not regard, with Hammond, as a distinct morbid entity. A short but excellent chapter on the Etiology follows, in which the respective shares of fright, excitement, traumatism, pregnancy, lactation, rheumatism, worms, syphilis, etc., find due notice. Six pages are then devoted to the Pathological Anatomy, in which the observations upon this point of Aitken, Kirkes, Broadbent, Tuckwell, Wilson Fox, Magnan, Howship-Dickinson, Elischer, etc., are duly referred to. The Pathology is treated of in another short chapter of four and a-half pages. The spinal theory of its origin advanced by Chauveau and his followers is entirely discarded, and its cerebral source very cogently maintained. The connection between Chorea, Rheumatism, and Endocarditis is well stated, and then follows a discussion of Kirkes' embolic views, and Bastian's theory of Thrombosis; and the author concludes with the expression of the belief that "Like all functional neuroses, Chorea is an evidence of low tone of the nervous system, and we may accordingly regard the cortical disturbance either as the result of anæmia in the parts affected, or of mal-nutrition or exhaustion of the ganglion cells in the convolutions." Two pages suffice for the differential diagnosis and prognosis, and double that number for the treatment. The author recommends rest, an abundance of sleep, gentle exercise in the open air, a generous diet, milk and cod-liver oil. If the appetite be defective, he administers a bitter; if the patient be anæmic, he prescribes iron. Gray and Tuckwell's experience of expectancy is quoted as giving the same result, as to duration, as Begbie's arsenical treatment.

Bromide of potash and chloral combined are spoken favourably of when necessary to procure sleep; and inhalations of nitrite of amyl are

said to resemble Fowler's solution in producing early amendment, but exercising little influence upon the later course of the affection. Strychnine, eserine, and curare are passingly alluded to, but, like the employment of galvanism, declared to be devoid of noticeable influence.

Epilepsy, and Neuralgia in its various forms, are then treated of with equal method and philosophy.

The concluding third of the book is devoted to a subject—Peripheral Paralysis—not strictly congeneric with the foregoing, nor cognate with the title of the work, but which will doubtless prove, at least to the majority of readers, equally valuable and instructive. We regret we have not space to notice these, but must content ourselves with saying that the book, as a whole, will prove a valuable addition to any physician's library, and a most succinct compendium of present knowledge of the omnipresent but still obscure subjects of which it treats. We deem it a high meed of praise to say that the book is worthy of the acceptance of the man to whom it is dedicated—one of the most distinguished of his countrymen,—Prof. E. G. Janeway.

Miscellaneous.

FOR HÆMORRHOIDS, Vidal recommends capsium pills, four or five daily. Each pill contains twenty centigrams.

SNOW BLINDNESS.—Dr. Reed of Detroit claims to have cured cases by the administration of amyl nitrite.

SORE NIPPLES.—R Tannin, 3i; bismuth trisnit, 3ij; Vaseline, 3i. M.—Apply constantly when the child is not nursing.

BROMIDE OF ETHYL.—Dr. Levis, the advocate of this new anæsthetic, has met with a fatal case himself, being the second already reported.

SPRAINS.—Place the limb in hot water and add boiling water slowly as long as it can be endured. The limb should be retained in the water fifteen or twenty minutes, when the pain will be found to have ceased in most cases.

IRON AND DIGITALIS.—It is recommended to combine tinct. ferri and tinct. digitalis with dilute phosphoric acid. This makes a clear and pleasant mixture.

PRESENTATION.—A beautifully endorsed Address and a handsome Davenport have been presented to Dr. C. K. Clarke by the officers and employees of the Toronto Asylum, as a mark of their esteem and friendship.

CENTRAL AND PERIPHERAL PARALYSIS OF THE FACE.—In central paralysis, if jaborandi be given, sweating occurs on both sides of the face. In peripheral paralysis there is no sweating on the paralyzed side.

PROPYLAMINE.—Dr. Gaston of Indiana says this remedy will remove the pain in acute rheumatism in twenty-four to forty-eight hours. Dr. Tyson's formula is—Propylamin chloridi, gr. 24; aq. menthæ, 3vj. M.—Tablespoonful every two or three hours.

LIGHTNING STROKE.—Nothnagle, after numerous observations on man and animals, concludes that the prognosis of paralysis from lightning stroke is uniformly favourable, and that recovery depends little, if at all, on treatment.

CANADIANS IN ENGLAND.—James Frederick William Ross, M.B., Toronto University, and John Bowring Lawford, M.D., McGill, have been admitted Licentiates of the Royal College of Physicians, London; also E. Coney Stevenson, M.B., Toronto.

CANADIANS IN SCOTLAND.—James Alexander Close, M.B., of Croydon, Ontario; John McWilliams, M.B., of London, Ontario; and Peter H. Bryce, M.B., of Mount Pleasant, Ontario, have been admitted L.R.C.P., Edin. and L.R.C.S. Edin.

HYDROFLUORIC ACID VAPOUR IN DIPHTHERIA.—Hydrofluoric acid evaporated in the proportion of one gramme to each cubic metre of the sick room, and thus inhaled by the patient, is said by Henri Bergeron to be a specific for Diphtheria. The evaporation should require three hours.

URTICARIA.—A peculiar case is reported in which the whole surface was covered with the eruption, which disappeared entirely when the patient was recumbent, and reappeared on arising. All other treatment failing, the constant current was applied along the spine, and a cure resulted in four or five days.

NEURALGIA OF THE TESTIS.—Dr. Hammond, in the *St. Louis Courier of Medicine*, reports two cases of this painful disease cured by compression of the cord by means of an instrument made on the principle of the common test-tube holder, or like a lemon squeezer. The compressing force used was strong elastic bands, or a screw.

A NEW SIGN OF DEATH BY STRANGULATION.—Strangulation exercised upon the living body may cause extravasation of blood in the wall of the carolid, if sufficient force be exerted to rupture the vasa vasorum. Such force may not always be exerted, hence the extravasation will not always be present, but when it is the sign is all important.—*Virchow's Archiv.*

MARTIN'S BANDAGE IN PSORIASIS.—Dr. G. W. Walker, in the *Cincinnati Lancet and Clinic*, reports two cases of psoriasis cured by Martin's bandage. In Case 1 the eruption completely disappeared in fifteen days, and there was no return six months after—no internal treatment. Case 2 was cured in three weeks. The bandage was applied firmly, but not tight enough to cause pain. It was removed morning and evening, cleansed, and immediately reapplied.

TO REMOVE GLASS-STOPPERS.—The following, given in the *English Mechanic*, will be likely to answer the purpose of removing obstinate glass-stoppers, when the shape of the stopper and of the neck of the bottle admit its use: Take two pieces of wood, and put them between the neck of the bottle and the lower part of the stopper. Having fixed them securely by a piece of string, soak the whole affair in water, say ten hours. If the wood has not swelled enough, pour some hot water over the wood, and as it swells (which it must), out comes the stopper.

IF pepsin is dissolved or suspended in any fluid of neutral reaction its power of digestion is interfered with; that means, it cannot show its full strength. If, however, the solution is made alkaline, the pepsin at once becomes inert—it loses all power to change albumen into pepton. The proper relation between some kind of acid—hydrochloric or lactic to be preferred—and the pepsin is an essential condition to bring out its digestive power, and, in therapeutics, the good effects of pepsin. Not only as an exception, but we well might say as a rule, we find in looking over prescriptions which contain more or less of pepsin, that the practitioner tries his best to combine pepsin with a variety of vegetable or mineral substances in such a manner that it cannot show its digestive power at all. Nothing is more common than to see pepsin combined with subcarbonate or subnitrate of bismuth, and yet it can easily be shown that the addition of even the latter salt to artificial gastric juice will interfere with the digestion of egg albumen. Bicarbonate of soda, the different preparations of iron, strong alcoholic tinctures, and elixirs are incompatible with pepsin.—KRETZSCHMAR.—(*Chicago Medical Journal and Examiner.*)

POISONING BY AMYL NITRITE.—Dr. G. F. Senter, of Evansville, Ind., reports, in the *Ind. Med. Reporter*, the case of a young lady, who, by mistake, took a dessertspoonful of nitrite of amyl. A druggist gave an emetic which acted promptly. The doctor saw her in twenty-five minutes. She was ejecting great quantities of fluid from her stomach, which saturated the whole room with an amyl-like odour. Her face was grayish white, pupils widely dilated, eyes glassy and vacantly rolling in their sockets. Mouth wide open, breathing spasmodic and irregular; a few breaths would be very rapid, then slow and long drawn, finally they ceased all rapidity and became barely perceptible. The pulse was irregular and jerking when first examined, soon however it became so slow and feeble that often I could not detect it at the wrist. The patient was the most limpid, limber, relaxed body imaginable. The skin was cold and clammy, suffused with a moist adhesive perspiration, super-saturated with amyl. Our treatment was locally, massage,

and warmth to the head and extremities, alternated with ambulation and flagellation. Internally after free emesis, hot coffee, sometimes with and sometimes without ten drops of tincture of opium.—*Bul. Med.-Legal Soc. N.Y., May.*

APPOINTMENTS.

John Walter Bowman, of the Township of Moore, Esq., M.D., to be an Associate Coroner in and for the County of Lambton.

Adam M. Lynd, of the Village of Parkdale, Esq., M.D., to be an Associate Coroner in and for the County of York.

J. R. Jones, M.B., Toronto, L.R.C.P. Lond., has been appointed House Physician to the Hospital for Women, Soho Square, London, England.

COMMUTATION RATES.

The attention of our readers is called to the very favourable commutation rates with other periodicals, Canadian and American, advertised in this issue. Subscribers wishing to avail themselves of these advantageous rates will please notify us. It should be remembered that payment must invariably be in advance.

THE PHILADELPHIA DIPLOMA MILL.

On glancing over the Ontario Medical Register recently, we noticed registered qualifications from the American Univ., Phil.; Univ. Med. Surg., Phil.; University Q. Coll., Penn.; Philadelphia University Physicians and Surgeons; Physic. Medical Institute, Conn. Inst. Med. Cincinnati, and numerous others. Section xxxiii. of the Ontario Medical Act reads: "No qualification shall be entered on the Register, either on the first registration or by way of addition to a registered name, unless the Registrar is satisfied by proper evidence that the person claiming is entitled to it; * * * and any entry proved to have been fraudulently or incorrectly made, may be erased from the Register by an order in writing of the Council." Now that the nefarious practices of Buchanan & Co., of Philadelphia, have been exposed, it is to be hoped that there will be some mitigation of the fraudulent obtaining of bogus diplomas in the States; and it will

be in order for the Council at its next meeting, or for the Executive Committee in the interim, to see that all qualifications illegally registered are erased, and those registering such qualifications dealt with as the law provides. (Sec. xxxix. Ont. Med. Act.)

UNIVERSITY OF TRINITY COLLEGE.—We are informed that this University will grant the degree of M.D., C.M., to all medical graduates who write an approved thesis on a medical and surgical subject. M.D. graduates can obtain the C.M. degree by writing on a surgical subject.

Births, Marriages, and Deaths.

BIRTHS.

At 78 Queen Street West, on Sept. 9th, the wife of Dr. Wagner, of a daughter.

On the 26th Aug., at her residence, 20 Bay Street, Hamilton, the relict of the late Dr. C. F. A. Locke, of a son.

At Yarker, on the 30th Aug., Mrs. Dr. Cannon, of a son.

At 547 Church Street, on September 26th, the wife of Dr. Jas. B. Baldwin, of a daughter.

MARRIED.

On August 25th, Dr. Malcolm Stalker, of Ripley, Co. Bruce, to Margaret, elder daughter of J. E. Berkeley Smith, Bursar of the University of Toronto.

On August 25th, Dr. D. A. Nelles, of Waterford, Co. Norfolk, to Helen, second daughter of J. E. Berkeley Smith, Bursar of the University of Toronto.

On Sept. 1st, at the residence of the bride's father, Lindsay, H. B. Weller, Esq., Attorney-at-Law, Millbrook, to Stella, eldest daughter of E. A. Herriman, Esq., M.D.

On Wednesday, Sept. 22nd, at the residence of the bride's mother, No. 37 Simcoe street, Toronto, Dr. Roland B. Orr, of Maple, Ont., to Minnie, only daughter of the late John Neill, sr.

On Tuesday, Sept. 14th, at Trinity Church, St. Thomas, by the Rev. W. B. Rally, Douglas Gerrard, son of the late Lieut.-Col. J. G. Gerrard, 1st Bengal European Fusiliers, to Mary Helen, eldest daughter of W. C. VanBuskirk, Esq., M.D., of St. Thomas.

At St. Mary's Cathedral, Hamilton, by the Rev. E. P. Slavin, J. B. Phelan, M.A., M.D., to Agnes Vivien, youngest daughter of the late John McLean, Esq., both of London, Ont.

DEATHS.

Mr. S. Messenger Bradley, of Manchester, Eng., died recently.

At 4 Paths, Jamaica, on August 3rd, Louisa, the wife of Dr. J. J. Hillary.

In Berlin, Mich., on the 16th August, E. P. VanVelsor, M.D., brother of D. J. VanVelsor, M.D., of Blenheim.

At Collingwood, on Aug. 23rd, Brock Russ Aylsworth, only son of Dr. G. M. Aylsworth, aged 5 months and 18 days.

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THE Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D.,
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R. ZIMMERMAN, M.D., L.R.C.P., London,
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Selections: Medicine.

[Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.]

ECZEMA AND PSORIASIS.

BY E. GUIBOUT.

Gentlemen, after a long day of marching and exploration, when night approaches the traveler delights to collect his thoughts. He ascends some high place, and casting his looks back over the route traversed, he embraces it in a single glance, both as a whole and in all its details. So we—we have just traversed a very long route. First of all, we saw what dermatology was: I have shown it to you as being, in the greatest number of cases, the expression, the faithful translation, on the external tegument, of a crowd of internal affections, the slightest as well as the gravest. Looked at from this point of view, it is indeed the light of diagnosis and the lamp of pathology.

We have then studied together the different anatomical lesions which constitute the cutaneous affections. You have seen how these lesions, by the variety which they present, form different kinds of dermatoses, which serve to distinguish them from one another, and establish their individuality and their morbid autonomy.

After these general and fundamental data, we entered into the particular study of the dermatoses taken separately, and we began with eczema and psoriasis. The history of these two affections has brought together very numerous details, very numerous descriptions of conditions and of pathological facts themselves very varied. Your memory has been overburdened with them. Let us do then as the tra-

veller of whom I have just spoken: let us look backwards—let us recall, let us co-ordinate our remembrances in order to make them more durable. Place them side by side, the two great figures of eczema and psoriasis; look at them thus united in a single picture; we will see between them notable resemblances, but differences greater and much more marked.

Eczema and psoriasis are, of the diseases of the skin, by far the most frequent. They are more important than all the other cutaneous diseases, not only on account of their frequency, but also by their gravity and by the tendency they have to become general, by the functional troubles they produce, by the deformities they occasion, by their long duration, by their tenacity, by their recurrence and by the formidable complications that accompany them. They are, each of them, the expression the most common, the most formal and the most clear, of that undeniable diathesis, although it be denied, which is called herpeticism. Both are hereditary, but not contagious. Both finally belong to the great class of secreting affections. But there ceases their points of resemblance, and we then find nothing but dissemblances the most marked.

Thus eczema and psoriasis are both secreting diseases; this is true, but eczema is the type of the *humid* secreting affections. The secretion which characterizes it commences under the epidermis, which it raises into vesicles; then when these have been broken, this secretion continues to operate on the surface of the ulcerated derma. Psoriasis, on the contrary, is the type of the *dry* secreting affections. In it there is nothing moist, all is absolutely dry; its secretion is purely epidermal; it is the epidermis altered, that is all.

Eczema is an inflammation ; it has all the characters and all the signs of an inflammatory disease : congestion, redness, tension, swelling and heat of skin. In eczema, the inflammation again is manifested by the sero-gummy secretion which is its principal symptom—secretion often so abundant as to constitute a true catarrh of the skin. The inflammatory character of eczema is also betrayed by subjective phenomena—that is to say, by troubles and by morbid accidents perceived and complained of by the patient : thus a sensation of tension, of heat, of smarting, of burning. It is to this very sensation of burning that eczema owes its name, since it is derived from the Greek verb *εκαίω*, “ I burn.”

In psoriasis all is very different. When we leave eczema to pass on to psoriasis, it seems that we leave the hot lands of the tropics to enter the icy regions of the north. Eczema was the living moist, hot eruption. Psoriasis is the dry, dead eruption ; its physiognomy remains without change, ever the same, immutable and immovable in the *statu quo* of that which has no life. It is a skin petrified, parchmented, mummified, dried, deprived of its secretions, which the sweat no longer moistens, which the sebaceous glands no longer lubricate ; which has lost its suppleness, its flexibility, its elasticity, its vitality. Around the articulations, around the natural orifices, it responds no more to the natural movements and tears like an inextensible and inert membrane. It is now nothing but a shell, a kind of scaly, indolent cuirass, which one may scratch, use and destroy without causing the slightest pain.

Psoriasis and eczema also differ in their seat. Eczema being an inflammatory affection, with a moist abundant secretion, requires a warm ground, itself moist and well watered, provided with a rich and abundant vascular network. Such is the genital zone and such is the axilla. Psoriasis, on the contrary, which requires only plenty of epidermis, affects the regions in which this epidermis is thick and abundant. Do you wish to seize the difference of situation in a single glance ? Take the inferior extremity : you will find eczema in the popliteal space, psoriasis on the knee. In the upper limb you will see eczema in the bend of

the arm and psoriasis on the elbows. Always, these are only the situations of predilection of these two diseases ; just as plants which prefer moist soils may also grow in dry places, so eczema and psoriasis may be met with in all regions of the body. But then their characters are modified and altered, as those plants of which we have just spoken are themselves when they have wandered into ground unsuited to their nature.

Eczema and psoriasis differ again in the character of their complications. An inflammatory affection, eczema has complications of an inflammatory type. Let the inflammation which constitutes it be very considerable ; let it spring up in some way from the bed of the eczema, it will then go on extending itself to the entire thickness of the skin, to the cellular subcutaneous tissue and to the lymphatics, and it will produce an erysipelas, a phlegmon or a lymphangitis, with its arborizations and its pink and sinuous lines. These complications are sometimes profound and visceral. They will bear upon one of the great apparatus of the economy, on the nervous centres, on the digestive apparatus, or on the respiratory apparatus ; you will then have a meningitis, an acute encephalitis, bronchial or gastro-intestinal catarrhs. But these complications will always have an acuteness and an intensity in proportion to the acuteness and to the intensity of the eczema which gives rise to them.

Psoriasis, on the contrary, an affection of a type essentially chronic, gives rise only to complications having, like it, all the characters of chronicity. In the direction of the lungs there will be chronic catarrhs, often ending in pulmonary tuberculosis ; in the digestive organs there will be dyspepsias and cancers—cancer of the intestine, and more often still, cancer of the stomach.

By its evolution and its march, again, eczema is distinguished from psoriasis. Eczema may be acute or chronic, but most often it is under the acute form that it presents itself. Psoriasis is always chronic ; it is a torpid type of slow progress, or rather it does not progress, it remains what it is—*Est id quod est*. It is to-day what it was yesterday, and it will be to-morrow what it is to-day.

In its fourth period, eczema becomes squamous like psoriasis, but its scales differ essentially from those of psoriasis. Thin, foliaceous, opaque, containing in the epidermic layer which constitutes them something humid and crusty, they are detached in lamellæ more or less large, and very easily, from the subjacent skin. The scales of psoriasis, on the contrary, are thick—so intimately imbricated upon one another that they cannot be detached without reducing them to powder, and we never find in them the slightest trace of moisture.

And yet, gentlemen, these two diseases, so different—these two opposite poles of dermatology, may be confounded, may be fused to constitute a hybrid and bastard affection, which holds to each without being, properly speaking, the one or the other. Just as there exists a lichenoid eczema, product of the union of lichen and eczema, likewise there exists, whatever our learned master, M. Hardy, may say of it, eczematous psoriasis, product of the union of psoriasis and eczema. Here is an example of it which I place before your eyes :—See these scales, how strong they are, how thick ; they are truly those of psoriasis ; but they contain in their woof a crusty element—they are detached from a slightly humid skin ; there is really something there which belongs to eczema ; it is then eczematous psoriasis.

All these differences, so marked, which separate from each other the symptomatology of eczema and psoriasis, we find them again when we come to the treatment of these two affections. Both are (at least very often) of herpetic nature, and you know the value of arsenic in the treatment of herpes. It appears then that the first care of the medical man should be to give arsenic at once, indiscriminately, in psoriasis as well as in eczema. It is not so. In acute eczema the skin is inflamed and congested, and arsenic would aggravate still more this inflammatory condition ; arsenic derives to the skin, you know. Prescribe it not then in the acuteness of eczema. Combat the phlegmasia at first with emollients ; later, only when you will have extinguished the inflammation, you will employ the specific medication.

In psoriasis you have not these manifestations to guard against. You can then boldly give arsenic at once.

The difference in the treatment of these two affections is still more marked when we come to their local or external treatment. In eczema all is inflammatory ; the external treatment ought then, before all, to be antiphlogistic. Lay aside irritants ; do not employ even the most innocent pomades ; inert at the moment of their application, they soon become irritating from the acid fermentation of the fatty bodies which they contain. Employ topically only those agents which preserve with integrity their emollient and antiphlogistic properties ; cover the diseased parts with the most emollient cataplasms, as of potato starch.

In psoriasis, emollients are unseasonable—they are productive of no good. What is necessary here is to make the scales fall, to modify the vitality of the skin by irritating substances, endowed with energetic and penetrating properties, which attain as far as the diseased derma—to restore to it its normal vitality, by a kind of slow substitutive inflammation. Go and treat an eczema thus, and you will see what incendiary results you will produce. Thus, gentlemen, these two affections, so different in the lesions which characterize them, differ no less in the treatment which suits them.

Permit me, gentlemen, to terminate this picture by a comparison which will appear to you perhaps a little venturesome, but which is none the less exact. In the two affections, with characters so different, which we have been studying, are personified in a certain way the different seasons of the year and the different ages of life. Eczema, with its changing physiognomy, lively and animated, with its warm and burning character, represents the spring and summer, childhood and youth. Psoriasis, with its aspect ever the same, cold, dull, and icy, recalls to me the autumn and winter, manhood and old age.

It is thus that, in nature, an attentive observation often reveals to us mysterious harmonies, unexpected relations and connections until then ignored, between objects the most distant and dissimilar.—*L'Union Médicale*.

It is now pretty generally known, at least among the New England members of the medical profession, that the new observatory of Yale College has undertaken to afford to physicians an accurate statement of the errors of clinical thermometers sent to the observatory for such purpose.

INFANTILE CONSTIPATION.

CLINIC OF PROF. JACOBI, APRIL 14, 1880.

How old is this child? "Three months." What is the trouble? "Its bowels move eight or ten times a day." Only a little at a time? "Yes, only a little bit." Are you sure its bowels move as often as that? "Yes, I think they do."

I show you here, in this napkin, a collection of these bits of fæces which the child is passing continually, the mother says as often as eight or ten times a day, but it is not probable that it is so frequent. You see that the colour of the fæces is about normal, but that they are deficient in moisture. They are dry and somewhat friable. If I break open a piece I shall find it a little white inside. No, it is very little changed in colour from the outside, only a little whitish within.

The passages of young babies are never normally like this. They are of about the same colour, but semi-solid. There is evidently here a lack of moisture, which may possibly arise from an insufficient secretion on the part of the intestinal glands. It may, however, arise from other causes. It was, I think, in 1869 that I alluded, in my writings (*Journal of Obstetrics*, Aug., 1869) to a peculiar anatomical condition occasionally existing in the bowels of new-born or young infants. It had been recognized before, by a few anatomists, that the intestinal tract is different in the young from what it is in the old. The colon is very much larger and longer, in proportion, in the child, than it is in the adult, and this peculiar condition often remains up to the age of five or six years. The child may have two or even three sigmoid flexures, or the real sigmoid flexure may not be found on the left side, but on the right. It has occurred that the colon has been on the right side and not on the left, in those cases of imperforate anus where the operation has failed to discover the sigmoid flexure on the left side. In the passages of the young, where the peristaltic action of the bowel is normal and the colon of the usual proportion, the passages will not dry out; but where the flexure is long, or where there are two or three of them, the fæces will dry out, as in the case before you.

In the fœtus and new-born the secretions of the intestines are very copious. There is a great deal of mucus and epithelium, which may become very hard and compressed—to such an amount, indeed, as to constitute actual obstruction. I remember one such case in my own practice, where constipation existed, accompanied by vomiting and other symptoms of complete obstruction. Water was injected in large quantities; air was blown into the intestine, and carbonic acid gas also, by means of an apparatus prepared for the purpose, but all to no avail. At last symptoms of regurgitation took place, peritonitis set in, and the child died. I made a post-mortem examination, and found that the condition was like this which I have mentioned. There were three sigmoid flexures, and in one of them an accumulation of epithelium, mucus, and fæces had taken place, which was so hard that my probe passed through the mass with difficulty. Not long after I was called to a similar case, and treated it in the same way, but without avail. I saw the case in consultation, and not liking to be caught in the same scrape again, was prepared to operate, when late one night my door bell rang, and the physician in charge of the case came in and said, "Doctor, the child has had a passage." The child had passed a mass of mucus and epithelium, and finally got well. There have occurred to me a number of cases like this in children, that cannot be explained in any other way than by the fact that there were two or three sigmoid flexures, one on top of the other, and impeding the free passage of the fæces.

When you are called to such a case, where you suspect such a state of things, you are to regulate the diet so that there may be an abundance of water in the food. In fact, it is always better to have too much water in an infant's food than too little. In the choice of food, do not give tapioca, rice, potatoes, or even barley, which is my favourite child's food, but give oatmeal in preference.

Purgatives ought not to be given except in very urgent cases; they will not act without great pain. You cannot do without injections, and from these you will derive great benefit. You may be compelled to use them for months and years. Remember that the constipation is

anatomical, and hence may not disappear until the cause has disappeared, and this peculiar condition may exist even up to the fifth year. You may give an enema every day, not of soap and water or salt and water, but simply wash out the intestine with pure warm water, and wait until nature restores to the intestinal canal its proper proportion. Not until then will the trouble disappear, for it is based on anatomical peculiarities. Oftentimes the accumulation of fæces in these flexures will give rise to dulness on percussion on that side. It is so in this case.

In a number of cases the constipation was so obstinate that I had to scoop out the rectum repeatedly. Have patience, inject day after day, and you will succeed when the time comes for a condition of the colon descendens, such as is met with in more advanced age.

Another cause of constipation like this may be that there is an insufficient physiological action of the muscular layer of the intestine. This may occur where it is not sufficiently developed, as in feeble children. In another class of children this constipation does not appear until from six months to one year after birth, and then from being perfectly regular they become obstinately constipated. In this class of children the muscles of voluntary motion, as well as of the intestine, become diminished in power; they are rachitic children. The symptoms of rachitis need not be developed at first in the bones. Rachitis is not always a disease of the bones primarily. It is a disease of the general system, and there are a number of children in whom the first symptom of rachitis is that of obstinate constipation; the worst cases are often those which commence with obstinate constipation. In these cases, where they occur as early as the second or third month, you will often find softening of the bones of the cranium, and the peculiar diaphragmatic groove. The child is often fat and vigorous looking up to the age of two or three months. Then, if obstinate constipation sets in, it is pretty safe to look for rachitis; and these cases are often, as I have before mentioned, the worst cases of rachitis, ending in effusion within the cranium, hydrocephalic symptoms, and sometimes death. You will not find these forms of constipation mentioned in the books; and should opportunity permit, I shall be glad to take the subject up again.—*Medical and Surgical Reporter.*

CALCIUM SALICYLATE IN THE SEROUS DIARRHŒAS OF INFANTS.

BY ALEXANDER HUTCHINS, M.D.,
Brooklyn, New York.

Dr. Hutchins reports the results of twenty-seven cases of serous diarrhœa in infants from two months to two and a-half years of age, treated with one drug only—calcium salicylate. Some of the cases were seen but once, many only twice, and none above four times, and in all the disease was promptly and permanently controlled.

The cases on which this memorandum is based are selected so far as to include all those with the more or less profuse watery alvine evacuations, with or without vomiting, and to exclude all others. The purport of this memorandum is to put on record the fact that these discharges were controlled by the calcium salicylate with a promptness and efficiency that the writer has never experienced by any other mode of treatment. The patients ranged in age from two months to two and a-half years. No discrimination was made as to diet, which, in some instances, was breast milk exclusively; in others, condensed milk, the patent foods, or a mixed diet. In no case was any modification of the previous diet called for, save in the matter of quantity. All the patients were in good social and hygienic surroundings. In two instances the infants were at their summer homes, and the telegraph and mail related the symptoms and conveyed the medicine. In all cases the dose was 3 to 5 grains from 2 to 4 hours. The total quantity consumed by each patient varied between 6 and 18 powders. In a few cases minute doses of aconite and veratrum were given during the stay of the high temperature, and in other few, small doses of quinine were followed up after the subsidence of the disease.

It was noted that the medicine seemed to have no influence in changing the secretions so as to modify the character of the evacuations. The discharges would be under control for a time, say from 2 to 12 hours, and the next movement would be a watery one, but there would be no further recurrence of the diarrhœa. There might be a return to normal movements, or there might be a change to a diarrhœa of

indigestion, or to a diarrhoea from irritation of the mucous surface, each of which would require some special interference. These sequelae were exceptional, but in no case did the serous discharge occur.

It was noted, likewise, that this treatment necessitated very little interference with the usual diet of the child. It would be nearer the exact fact to say that no interference was required. In the majority of cases the discharges were so promptly checked that an indigestion did not occur.

It was further noted that the calcium salt had no appreciable effect on any one of the other forms of intestinal flux, whether lienteric or inflammatory. The serous diarrhoea alone seemed to be amenable to this drug. Each of the other forms required special treatment.

An additional fact was noted, that the vomiting accompanying these diarrhoeas was controlled so soon as the medicine began to show its effect on the discharges.

The following prescriptions contain five-grain doses of the salicylates:—

R.—Acid salicylic..... gr. xxx.
Cretæ precip. gr. x.
Syrupi..... ʒii.
Aquæ ʒxiv.

M. Two teaspoonfuls every 2 to 4 hours.

R.—Acid salicylic..... gr. xxvi.
Bismuth teroxid..... gr. xiv.
Tr. hyoscyami..... ʒi.
Syrupi..... ʒii.
Aquæ ʒxiii.

M. Two teaspoonfuls every 2 to 4 hours.

The form in which I have used the calcium salt would be represented in a formal prescription thus:

R.—Acid salicylic.. gr. xxii.
Cretæ preparat. gr. viii.
Misce accurate.

Divide in chart. No. vi. (gr. v.), vel. No. x. (gr. iii.)

Sig. one every 2 to 4 hours.

I found the calcium salt so effective that I abandoned the bismuth salt mainly to avoid the discolouration of the discharges due to the bismuth. I did not find that the bismuth acted any more effectually than the calcium in controlling the vomiting.—*Advance Sheets of King's County Proceedings.*

Surgery.

TREATMENT OF STRICTURES OF THE URETHRA—PERMANENT DILATATION.

BY M. GUYON.

[Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.]

The end which we propose to ourselves in the treatment of strictures of the urethra, is to re-establish the normal canal of the urethra. Now, we ought first to ask if we are able to obtain such a result. To this question I answer immediately, No. We can restore the normal calibre of the urethra only in a relative and temporary manner—we can never obtain a perfect and definitive cure. But this does not signify that we cannot render immense services.

The pathological tissue which constitutes the stricture is such that it is extremely retractile. Treatment does not exhaust this capital and pathological property of this tissue. This retractile tissue forms an integral part of the wall of the canal. This wall must be modified, then, and not destroyed, as is the object of certain treatments of strictures. What we ought to seek is to "modify" this wall. To arrive at this, and to restore to it its width, it has been sought to render the canal gradually extensible, or even it has been forcibly distended, either by tearing it or by incising it. We find, then, amongst the different methods, *dilatation*, *divulsion*, and *urethrotomy*.

You have already seen the considerable value of dilatation. It constitutes a method which allows us to arrive at the treatment of the stricture without destroying it—it is a method essentially modificatory, which by the fact that it neutralizes the retractile properties of the stricture, ought to be the base of the treatment of strictures.

This theoretical view is in fact confirmed by practice. It is by dilatation that we can cure the greatest number of urethral strictures. Divulsion would not be efficacious if we had not still to complete it by the benefits of dilatation, the sole method which modifies the tissue of the stricture and brings it back towards its normal condition.

Dilatation.—Dilatation is an operation whose object is to provoke in the tissue of the stricture

a physiological labour, destined to gradually modify the properties of the morbid tissue.

There are three great processes of dilatation : *permanent*, *temporary*, and *rapid* dilatation.

Permanent dilatation is not the treatment most in use, but it is that which throws most light upon the modificatory action of the instrument introduced into the urethra. This process is that also which in appearance gives the most brilliant results. It consists in the prolonged sojourn in the urethra of a dilating instrument. Note well what I say : in the urethra, and not in the stricture alone ; for we may make use of permanent dilatation by leaving the instrument in contact with the entrance of the stricture, without having passed it, or with the whole extent of the stricture after having passed it.

To dilate strictures we make use of bougies and sounds. They ought to be olivary and conical. The bougies are particularly suitable in the cases in which we leave the extremity of the instrument supported against the entrance of the stricture. Though this should not be a process of choice—for when we can pass the stricture, we ought to profit by the resources of a first success—it must not, however, be disdained. More than once you will not be able to pass a stricture, and you ought to use this artifice.

To put in practice this *cathétérisme appuyé*, which does perfectly well in certain cases, and which at times gives a total or partial evacuation of the bladder in subjects who could not urinate before, there are two different methods. One leans on the anterior part of the stricture with pressure or without pressure. Hunter and Dupuytren first did the "*catheterisme appuyé*" with pressure ; however, you ought always in my opinion to push only moderately, to avoid the ulcerations and the perforations of the canal too often produced by the catheterism according to the process of Hunter. Always in fixing the sound applied against the stricture, you will watch that the contact of the extremity of the sound with the entrance of the stricture is well established. It is necessary that this contact should be well assured, and that it be prolonged. Dupuytren most often left the sound twenty-four hours even when the sound was fixed in a

pronounced tension. What we ought to seek is not a manœuvre of force, but a modificatory process. What takes place, in fact, when a bougie is in contact with the stricture that it cannot pass ? This stricture often becomes easily passable after the *cathétérisme appuyé* ; it even admits instruments relatively large. Many theories have been imagined to explain this phenomenon. Desault, Chopin, and then Dupuytren, have called this treatment by dilatation "*vital*," a process which did not act, according to them, on the whole canal, as in "*mechanical*" dilatation ; but here, under the influence of contact, the spasm ceased and gave rise to a more or less abundant secretion of mucus and even of pus, which brought on a disengorgement of the walls of the urethra, and consequently the enlargement of the stricture.

To this theory it ought to be objected that in certain cases the *cathétérisme appuyé* acts very rapidly, and that we cannot invoke, in order to explain the result, a disengorgement which has not had time to operate. Dupuytren explained it, then, by the disappearance of the contraction.

Civiale, who has also made great use of the *cathétérisme appuyé* to prepare for the penetration of other instruments, thought the contact blunted the sensibility and caused the contractions and the spasm of the canal to cease.

All this is disputable, but the theory matters little to us. Let us hold to the clinical facts, to the consequences of a manœuvre well made and well conducted ; later we will seek for an explanation of it. Remark always, that from this action of simple contact it results that often there is no need of a mechanical action upon the stricture to obtain its dilatation.

Let us now occupy ourselves with the mode of employment of this permanent dilatation. It is well recommended to place in the stricture a bougie which may not fit too close ; it is necessary that it should almost play in the stricture. It ought scarcely to be in contact with the wall, though skimming over its surface. You will see every day, in fact, patients with strictures thus treated with a free bougie, draw from it great advantages ; in two days a stricture which allowed bougies to pass of only one or two millimetres, quickly admit

one of three or four millimetres in diameter, after a treatment of two to six days. Permanent dilatation then acts rapidly.

A slight difficulty may present itself: when we have introduced a bougie with a certain friction, always not exaggerated, you will feel it sometimes grasped very strongly, and even after some time, during the first hours, the stricture augments, and the patient cannot urinate on his bougie during a certain delay. It is, in fact, that in all, whatever may be the limit of time, the canal closes upon the bougie. But the same evening the bougie becomes clear again, and even "it is gay;" it plays in the canal; the patient has emptied more or less completely his bladder without your having done anything else than the introduction of the bougie, the urine being discharged between the bougie and the wall of the urethra.

To complete the result obtained, may we continue the permanent dilatation? We can, and do. When we have arrived at a certain degree of dilatation, we replace the bougie by a sound, No. 12 (about 4 millimetres); then some days after we introduce sounds of a larger calibre.

We have also tried to profit by the primitive dilatation—to pass successively in a single session a series of bougies. But this is no longer permanent dilatation. This was the process Dupuytren ordinarily employed. Now, if it gives results so rapid, why is it not employed daily? It is not without reason. This abandonment is due to the fact that the results are not durable, but they are at times very useful. Thus, in a man who had a stricture, and in whom we had broken a sound in his bladder, I was able to pass quickly from a No. 11, to which he had been reduced for about twenty years, to No. 21, which permitted me to introduce a lithotrite and extract the foreign body. I had engaged the patient to try and preserve this dilatation, but in a few days the canal returned to the calibre of No. 11, and remained there.

We also utilize this process to make a man urinate, who has retention, when we cannot introduce a sound.

Civiale remarked that nothing is more common than to see strictures treated by sounds *à demeure*, reproduce themselves in a very short

time. That which has also caused permanent dilatation to be given up is the grave accidents which have sometimes accompanied it. At all times they are not imputable to the process itself, but to the manner in which it has been put in practice.

Dupuytren called "mechanical" the dilatation which we are going to study, that which acts especially on the canal; but he recognized that it was far from being absolutely mechanical; there is no necessity for filling the whole stricture. But is there a particular influence, a very peculiar work, which determines a true softening? When we introduce a sound *à demeure*, we feel the penile strictures form hard nuclei like the beads of a rosary. Now, after a very short sojourn of the sound *à demeure*, these hard nuclei spread themselves out, soften, and disappear. There is an abundant secretion. This disengorgement, is it the cause which has brought the softening? They are evidently inflammatory phenomena, analogous to those that we ordinarily observe in irritative and inflammatory actions; but there are some cases in which something else than these modifications of the tissue has been produced, and in which there has been effected a veritable destruction of the elements and ulceration, so that a certain mode of dilatation has been called ulcerative dilatation. This is what Hunter wished when he pushed with force upon the entrance of the stricture. This method is destructive rather than modificatory; for we have seen, in some unfortunate cases followed by death, that the stricture was really destroyed. We had then acted contrary to the spirit of the method. This ulceration has been able to give good results, but the limits have often been surpassed, and the *corpus spongiosum* itself been reached, as Voilemier cites three facts of it in which the opening of the *corpus cavernosum* was followed by mortal phlebitis.

It is this mechanical mode of dilatation which justifies all the evil which is spoken of dilatation. A person one day or another falls into the grave fault of forcing the dilatation; that is why the second portion of the treatment—the substitution of sounds for the bougies—has been abandoned. Wrong has been done in criticising too closely the sound *à demeure*; if it never leans

with force upon the walls of the stricture, it renders great services. The important point is not to distend the urethra to any degree.

In conclusion, permanent dilatation, in the two manœuvres, does not act in a mechanical manner. Whenever it becomes mechanical, and whenever it distends the walls, it becomes dangerous. We may then dilate a urethra in this manner, but it must be known that the return is in direct ratio with the rapidity of the result obtained.—*Gazette des Hôpitaux*.

ON THE TREATMENT OF LATERAL CURVATURE OF THE SPINE BY STEEL SUPPORTS, PLASTER-OF-PARIS JACKET, AND THE PORO-PLASTIC JACKET.

BY WM. ADAMS, F.R.C.S.

The author commenced by alluding to the great change in the treatment of curvatures of the spine, both angular and lateral, during the last three years, in consequence of the method introduced by Professor Sayre, of New York, *i.e.*, the application of the principle of extension, by suspending the patient from the head and arms, and then applying a plaster-of-Paris jacket during suspension. The author did not propose to speak of angular curvature from Pott's disease, further than to say that it was in this class of cases that the advantages of the plaster-of-Paris jacket were most conspicuous; and his experience led him to confirm all that Professor Sayre had claimed for it; but in the treatment of lateral curvature, Mr. Adams differed from Dr. Sayre, and believed the plaster-of-Paris jacket to be as useless and injurious in this class of cases as it was useful in cases of angular curvature. For practical purposes, the author arranged cases of lateral curvature in three classes, *viz.*, 1. Physiological curves; 2. Confirmed structural curves; 3. Commencing structural curves. In forming a diagnosis between these three classes, the importance of the stooping position as affording evidence of the existence of rotation of the bodies of the vertebræ was particularly insisted upon, attention being directed to the symmetrical relations or otherwise of the angles of the ribs in the dorsal region, and of the transverse processes in the

lumbar region, rather than to the spinous processes, the apices of which might preserve their normally straight line in relation to one another, without any lateral deviation, whilst rotation of the bodies of the vertebræ might have taken place to a considerable extent, rendering the case incurable. This fact was illustrated by a specimen exhibited to the Society by Mr. Adams, and described in a paper published with illustrations in vol. xxxvii. of the *Transactions* of the Society. In the cases of commencing structural curve, in which probably the intervertebral cartilages only had suffered from unequal compression, arranged in the third class, and forming an intermediate group between the first and second classes, the spinal curvature was much more apparent in the standing than in the stooping position; although, in the stooping position, it did not completely disappear, as in the physiological curves. Some evidence of commencing rotation was afforded by a slight posterior projection of the angles of the ribs on one side, and depression on the other; and a similar deviation as regards the transverse processes in the lumbar region, when the patient was examined in the stooping position. With regard to treatment of cases in the first class, or physiological curves, no mechanical treatment by any form of spinal support should be given, but reliance should be placed entirely upon physiological means, such as gymnastic exercises, partial recumbency, and attention to the general health. In some cases, an elastic brace attached to stays might be used. In the second class, of confirmed structural curves, mechanical support of some kind must be resorted to, and continued during the growth, in the hope of preventing increase and obtaining some improvement in the curvature; but confirmed lateral curvature, whether slight or severe, with its adapted series of structural changes, was essentially incurable. The most efficient retentive spinal support was an instrument made with a pelvic belt and spring plates attached to vertical bars at the back, without any mechanism requiring alteration by the surgeon. In some favourable cases for improvement, the stronger spinal instrument, with steel plates attached to levers, and adjusted by rack-and-pinion movements, might be used with

advantage. Sayre's plaster-of-Paris jacket had been largely employed in these cases; but from what the author had observed in the practice of others, he condemned its application on the grounds that it failed as a curative agent, the gain in height by extension being quickly lost; that it weakened the spinal muscles by its constant use, and hindered gymnastic exercises; that it restrained respiratory movements, and prevented active exercise; and that it was an unnecessary restraint at night, and interfered with bathing and cleanliness. The poroplastic jacket, which, when softened by steam, was applied in the same way as the plaster-of-Paris jacket during suspension, was free from the disadvantages of the latter, as it could be removed at night, or at any time, for the purpose of gymnastic exercises, etc. It acted as an efficient and light retentive support in many cases of incurable curvature. Commencing structural curves formed the only curable cases of lateral curvature; and for these the author recommended a combination of mechanical support, gymnastic exercises, and partial recumbency. By this combination of physiological and mechanical means, the further progress of curvature would be arrested, and the best opportunity afforded for recovery from such slight structural damage as might have already occurred.

Mr. Bryant said that Mr. Adams's observations were consonant with what was felt by most surgeons. On one point, however, there might be difference of opinion, viz., as to the time when curvature ceased to be curable by physiological means, and passed into the incurable stage, requiring artificial supports. He would delay assuming the commencement of the incurable stage as long as possible. In many cases of lateral curvature, recovery took place in a remarkable degree. He approved of the means of diagnosis recommended by Mr. Adams. He had been accustomed to examine the patients in the stooping position, with their hands on the back of a chair. He agreed that the plaster-of-Paris jacket was not fitted for lateral curvature; though in some rare instances, of which he had seen one, it was the only thing that would support the patients. He would even discard the iron apparatus.

The poroplastic jacket was preferable to any other; and the addition of steel bars to it, as recommended by Mr. Adams, was no doubt an advantage.—Mr. Warrington Haward was glad to hear Mr. Adams say that many cases of lateral curvature did not need any apparatus. He thought that the prejudice of the public was rather in favour of artificial supports than against them. He agreed with the opinion that the application of supports should be delayed as long as possible. All spinal supports were necessary evils, for they interfered with respiration. In cases where the curvature was apparently only an indication of general debility, he would depend more on recumbency and exercise, both being judiciously regulated by the surgeon, and the general health being at the same time attended to, than on artificial supports. In such cases, the application of the plaster jacket tended only to still more weaken the spinal muscles. When the disease had become incurable, the object was to prevent it from becoming worse; and he would here use the poroplastic jacket, which could be fitted to every part of the body.—*British Medical Journal*.

ON A NOVEL METHOD OF REDUCING DISLOCATION OF THE SHOULDER.—I placed the patient in a chair. I then put my *right* foot (the injury, be it observed, being on the *left* side of the patient), on the edge of the chair, and drew the patient's forearm under my leg. I placed the wife (the only person available for my purpose) behind the chair, and, with both her hands over the patient's *right* shoulder, desired her to grasp his wrist firmly. I then held the head of the humerus with both hands, the thumb of each hand pressing against the point of the acromion process of the scapula, thus forming a fulcrum to a lever in the axilla, and at the same time fixing the scapula from following the humerus in the act of extension—a consideration on which the merits (if any belong to it) principally depend. By dropping my foot off the chair and pressing the arm downward with my leg, the head of the bone slipped into the glenoid cavity with the usual click, and with unusual ease.—*Mr. John Jones, in St. George's Hospital Reports, Vol. IX., 1877-8.—N. Y. Medical Journal.*

TREATMENT OF SPRAINS BY MASSAGE.

[Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.]

Dr. Berenger-Ferand, an old army surgeon, in his study, tells us of four hundred sprains which he treated successfully with massage. He speaks as follows :

I think it necessary to tell in detail how, in my opinion, a person ought to proceed when he undertakes to treat a sprain by massage, for it is by indicating very clearly the manner of proceeding which has succeeded, that those who are beginners are put under the best conditions to obtain a success, at the first essay which they may make of the method. Let us suppose that we have a sprain of the foot. After we have arrived beside the wounded, and note, in beginning, that the nearer the massage is to the moment of the accident the shorter is the treatment, we make him sit upon a chair, if he was up ; we seat ourselves in front of him, and make him put his injured foot upon our knees. If, on the contrary, the subject was lying down, it suffices to uncover him, and, if need be, to unbandage him in order to make a diagnosis. This diagnosis being established—that is to say, when we have found out that we have to do with a sprain, slight, medium, intense, or complicated—we proceed to the manipulations. We begin by making on the dorsal face of the foot, going from the root of the toes to the leg, following the direction of the extensor tendons, passes, as light as possible, with the pulp of the four last fingers, anointed from time to time with some fat body—olive oil, for example. These frictions, which ought always to be directed from the extremity towards the root of the limb, and never in a contrary direction, are extremely light ; they begin quite far above the painful part, and are prolonged as far below. They ought not to be painful ; and in the cases in which, in spite of their extreme slightness, the subject finds them too painful, it would be necessary to begin at some other region, leaving the dorsum of the foot to return to it when the sensibility will be a little blunted by the massage.

Little by little the pressure is augmented, and at first the pulp of the four last fingers of both hands, then that of the two thumbs, inter-

vene, according as the contact is less painful for the patient. A few minutes after beginning, in general, one may press very notably on a place which at first could not support the slightest friction without suffering. Soon after it is a veritable friction, quite strong, that we may practice, in taking care to have recourse to the fat body to protect the skin of the patient, which would not be slow to become excoriated if it was massied dry, and the pulp of the fingers feels a sort of peritendinous œdema which one makes mount upwards little by little above the ankle, as far as the fleshy portion of the extensors of the toes and of the anterior tibial.

According as the contacts are less painful, we cause slight movements to be executed upon the articulations in the neighbourhood of those which are injured, and one arrives thus little by little to those in which the sprain has spent most directly its effects. These movements are very gradual ; imperceptible at first, they go on little by little increasing, until at the end of the *séance*, which it is necessary to prolong willingly, pain being always very carefully avoided, we cause the part to execute all its physiological movements in their greatest amplitude.

At certain moments we may feel under our fingers substances like small nodosities, more or less voluminous, large as a lentil—nodosities at first fixed, afterwards movable, of which the patient is conscious, and which give an impression of pain when pressed a little forcibly. It is necessary to pass the fingers with persistence over them, taking care to do so lightly enough not to make the patient suffer ; and, moreover, must be mobilized little by little—at first to they chase them very gently, afterwards as far as the fleshy portions of the extensor muscles of the toe and the *tibialis anterior*.

At the end of a time which varies from one to five minutes, friction may be applied with greater and greater force, and soon strong pressure provokes no sensible pain. This is the moment to leave this portion of the foot to mass either the more external part or the internal part, by passing then along the border of the foot as far as the malleolus, which is turned in such a manner as to follow either the tract of the peroneal tendons or that of the muscles of

the posterior tibial region. We act upon each of these regions, as I have said previously, going from the lightest rubbing to vigorous friction, taking as a guide the impressions made upon the patient, and taking great care not to hurtle against an osseous eminence.

The *séance* ought to continue until all feeling of distress and pain have disappeared. When the operation is once terminated a retentive apparatus is applied.—*L'Union Méd. du Canada*.

BLOODLESS OPERATIONS ON THE FEMALE BREAST.—H. Leisrink (*Cbl. f. Chir.*, No. 30, 1880), in a case where tumours of the mamma, accompanied by continuous hæmorrhage, threatened the life of the patient, made use of a compression apparatus somewhat like that used in the operation for phimosis. Two parallel steel rods were arranged, by means of transverse extensions at either end of one running through holes in the ends of the other, and moved by the aid of nuts running on a thread cut in the transverse bars, so as to be approached with considerable force. They were then attached to the root of the mamma, which was pendulous, and, the nuts being turned, such compression was obtained that the vascular supply to the breast was entirely cut off and amputation performed without the loss of a drop of blood. Of course, in the case of plump, round breasts this apparatus could not be employed; but, inasmuch as tumours of the breast commonly occur at an age when the adipose tissue of the organ has to a considerable extent disappeared, it may be hoped that this apparatus will find extensive employment among surgeons.

OZÆNA CURED BY IODOFORM.—Dr. George Letzel (*Allgem. Med. Central. Zeitung*, June 5th, 1880) was induced to use iodoform in ozæna by the favourable results which followed its use in otorrhœa. He used a powder consisting of 2 parts of iodoform and 10 parts of pulverized gum arabic. This is used as a snuff, being drawn into the nostrils from three to six times a day. In the six cases treated by this method the results were exceedingly favourable. Two cases, which had lasted for months, and in which every means which

could be thought of had been tried without any benefit, were completely cured within ten or fourteen days. The other four cases, which were less severe, were cured in from six to eight days. Before using the powder, Dr. Letzel cleanses the nose as thoroughly as possible with the nasal douche, and removes all scabs by means of the ear-scoop, so as to allow the powder to come directly in contact with the mucous membrane. With reference to the unpleasant smell of the iodoform, he says that it is, at least, less disagreeable than the odour caused by the ozæna itself. This treatment commends itself for its simplicity; but it should be mentioned in using the nasal douche, that Dr. Roosa, of New York, and others have found that, unless very great precautions are observed, it is liable to lead to deafness. Dr. Lennox Brown, who is attached to a hospital where both throat and nasal and ear diseases are treated, states that he has frequently observed this result. Browne on *Diseases of the Throat*, pp. 65 and 166.—W. C. D., in *Virginia Med. Monthly*.

A NEW IDEA ABOUT RECURRING GONORRHEA.—Dr. H. C. Howard, of Champaign, Illinois, has recently had a series of cases in which gonorrhœa had been communicated by the husband to the wife, and cured in both, but repeatedly returned in the case of the husband, although he had not been improperly exposed. Careful examination of the female showed that the disease had persisted in the little glands of the female urethra, first described by Dr. A. J. C. Skene, of Brooklyn (*American Journal of Obstetrics*, April, 1880), and fully noticed editorially in the *Chicago Medical Gazette*, May 5, 1880. Dr. Howard, believing that these little glands were continuing to pour out true gonorrhœal pus, although the patient presented no other evidence of the disease, and that this pus had produced recurrent gonorrhœa in the male, directed his treatment to them, which consisted in the application of carbolic acid crystals. In each case the discharge disappeared permanently under this treatment, and the disease in the male now having been cured, did not return. Dr. Skene, in his original paper, expresses the opinion that in the cases which he

had observed, the inflammation was caused by gonorrhœa, which persisted in the glands long after the original trace of the disease had disappeared. Dr. Howard seems to have been the first to note this condition as a cause of gonorrhœa recurring as often as cured in the male. His observation is important as showing that the female may communicate the disease long after it would previously have been pronounced cured.—*Chicago Med. Review.*

A NEW OPERATION IN PROLAPSUS OF THE RECTUM has been devised by Professor Kehrer, of Giessen, an account of which we find in the *Deutsche Medicinische Wochenschrift*, No. 33, 1880. Dissatisfied with the uncertainty of the present methods, the author has based an operation on a principle which he describes as follows: If a rubber ring has been stretched too far, its size may be again reduced by eliminating a piece of the ring by a knot. He compares the sphincter of the anus to such a ring, and proceeds to shorten it on the same plan. Opening the anus with a small Sims' speculum, he removes a slip of mucous membrane, preferably from the posterior side. This slip has the shape of a triangle, the apex of which is directed upwards, the base being the line where the mucous membrane and skin meet. On exerting traction with a tenaculum from the centre of the denuded portion of the sphincter, outward, the exposed portion of the muscle folds, and the ring is thereby shortened just so much. Sutures are now applied to keep the folded surfaces in apposition, and are only removed after union has occurred. But two cases are reported by the author; these, however, with good success. The operation was performed with antiseptic precautions, thorough irrigation with carbolic acid, and insertion of a plug of cotton saturated with a ten per cent. solution of carbolic acid and glycerine. The wound healed by first intention.—*Chicago Medical Review.*

ACETATE of lead, given from two to three grains in the twenty-four hours, acts perfectly in muco-purulent bronchial catarrh, diminishing in a rapid and effectual manner the exudation, and with it the cough, and its presence is not declared in the urine before it has already produced its salutary effects on the respiratory organs.—*Louisville Medical News.*

Midwifery.

THE ETIOLOGY AND TREATMENT OF LACERATIONS OF THE CERVIX UTERI.

BY MONTROSE A. PALLAN, M.D., LL.D., NEW YORK.

In this paper, Dr. Pallen first discussed the reason why so many women suffered from lacerations of the genital organs during parturition. He ascribed the laceration of the neck of the womb, which occurred in many cases, either to causes existing in the pelvis, or to neglect, or the use of instruments. Of about nine hundred patients treated in the gynecological class of the University Medical College of New York during the last six years, more than two hundred had laceration of the cervix, which either interfered with the generative functions or produced more or less disease. As causes of laceration, Dr. Pallen referred especially to tedious labour, and the scleremic condition often following congestion or inflammation—the so-called hyperplasia cervicis; also to disproportion or deformity in the osseous structures, rendering the use of the forceps necessary. The injury could not be positively recognized until delivery was completed; but, if the pelvis were very roomy, it was to be suspected when the child's head and the mother's vulva became suddenly bathed with blood. Hæmorrhage was the chief symptom, and was sometimes fatal. If it persisted, its source should be ascertained. If, after the uterus had well contracted, the absence of laceration of the external parts had been ascertained by ocular inspection, and the parts had been well cleansed with carbolized water, blood continued to escape from the vagina, the deduction necessarily would be that it came from the cervix; and examination with the finger would detect the laceration. In such a case, Dr. Pallen would introduce a Sims' speculum, cleanse the vagina of clots, and see the point whence the blood issued. The use of the tampon was sometimes necessary to save the patient; and on several occasions he had employed silver wire sutures. In speaking of this he took occasion to recommend that the obstetrician should always go to a labour

provided for any emergency of the kind that might occur. If plugging were required, the accoucheur should first introduce a tampon of styptic cotton saturated with alum or with persulphate of iron, and then pack the cervix with as many layers of cotton as could be introduced into the vagina. The plugging must always be done by means of a Sims' speculum, with the woman in the semi-prone position; and each layer of cotton must be smoothly and accurately placed in position. After the removal of the tampon, frequent irrigations of carbolized or thymolized water must be made for two or three days, until all possibility of sepsis had been removed by the development of the granulation process. In describing the operation for closure of the lacerations, Dr. Pallen said that he had performed it at least fifty times during the last six years on hospital patients; and it had been done in many other cases since 1866. The proper time for performing the operation—which should be done in all cases, however slight the laceration—was four or five days after the cessation of the menstrual flow. In operating, the patient should be placed on the table in the left lateral semi-prone position, with the perineum retracted by a Sims' speculum, or one of its modifications. Dr. Pallen had hitherto frequently operated without anæsthetics; otherwise he had used ether, but would in future employ nitrous oxide. The instruments used for paring the edges of the laceration were scissors, about seven inches in length, of a variety of curves. During the dissection, the cervix was steadied by a tenaculum as long as or longer than the scissors; the point being very hard and bent at an acute angle. An assistant sponged the bleeding surface rapidly and thoroughly with very small sponges. To control bleeding, Dr. Emmet had described a tourniquet; but Dr. Pallen found a very hot douche just prior to the operation generally sufficient. In general, the loss of blood did not exceed an ounce. Sometimes, however, very large vessels were cut, and, when these ramified in the dense cicatricial tissue, bleeding might continue until the edges were firmly approximated by the silver wires. If the cicatricial tissue were not all cut away, it might altogether interfere

with healing, or its retraction during healing might give rise to secondary hæmorrhage. The sutures were applied by means of short, straight, well-tempered needles, with very sharp and hard points; sometimes, to pass the sutures through the upper angle, a needle shaped like a fish hook was necessary. Before twisting the wires, all clots should be sponged away, and the edges of the wound accurately approximated; the sutures must be bent on the flat and curved on the cervical tissue, and cut off about two lines from the wound.

The President referred to the value of the paper, and expressed a fear that, on this side of the Atlantic, there were few who were competent to discuss the matter from personal knowledge. He thought it possible that it might not be necessary in every case of lacerated cervix to sew it up.

Dr. Graily Hewitt, London, observed, in reference to the question that had been raised as to the frequency of laceration of the uterine cervix, that he had formerly not observed it particularly; but, since his attention had been drawn to the subject by Dr. Emmet's recent paper, he had met with the condition in several cases.

Dr. Marion Sims, New York, looked upon this operation as one of the most important additions to gynæcology in modern times. He had overlooked the condition until his attention was drawn to it by Dr. Emmet. As regarded the primary operation, he thought the laceration would not be diagnosed or operated on frequently, but the chronic condition every one could recognize, and it must now be treated. The operation was done with great frequency in New York, and did produce good results in cases which had resisted all other means of treatment. He thought it was now done sometimes where it was not necessary. It was only necessary when the mucous membrane was hypertrophied and ectropic.—*British Medical Journal*.

ON CONGESTIVE HYPERTROPHY OF THE MUCOUS LINING OF THE BODY OF THE UTERUS.—By GRAILY HEWITT, M.D., F.R.C.P. (London).—The author related a case in which a lady, single, aged 42, was suffering from great

enlargement, congestion, and anteversion and flexion of the uterus, the result of an attack of severe sea-sickness four years ago. The symptoms were constant pain and hæmorrhage on exertion. Operation for removal of a growth from the interior of the uterus had been performed by Dr. Milner Moore, of Coventry, a year before, with temporary relief. There was now found to be a prominent, projecting, soft, tumour-like growth within the uterus. A second operation was contemplated, and a preparatory treatment of rest and daily reposition of uterus was carried out carefully by Dr. Brockwell, of Gipsy Hill, at the author's request. On proceeding to the operation, about ten days afterwards, it was found that the intra-uterine swelling had become enormously reduced; thereby showing that the swelling in question, which it had been feared was sarcomatous, was nothing more than the greatly hypertrophied and congested mucous membrane of the uterus. The uterus had been kept entirely in place, had become much reduced in size, and the hypertrophic mucous membrane to be removed was slight in amount. Nitric acid was applied to the surface. The patient did well. The case related demonstrated the extent to which mere congestion, produced by anteversion, might give rise to a tumour-like hypertrophy of the lining of the uterus. It also showed the effect of comparatively simple measures in reducing such hypertrophy.

NEW YORK HOSPITAL.—Dr. Bulkley will give a fourth course of lectures on Diseases of the Skin in the Pathological Amphitheatre of the New York Hospital, 7 West 15th Street, Wednesday afternoons from 2:30 to 3:30 o'clock, commencing Wednesday, October 6th, 1880. The Lectures will be Didactic and Clinical in character, going over the entire subject of diseases of the skin (including syphilis), and will be freely illustrated by coloured plates, photographs, life-sized models, the blackboard, and abundant clinical material. The pathology, differential diagnosis, and treatment of diseases of the skin will be especially considered. The course will consist of twenty-four lectures, and will be free to practitioners of medicine and medical students.

Original Communications.

ON THE BENEFICENT AND TOXICAL EFFECTS OF THE VARIOUS SPECIES OF RHUS.

BY T. J. W. BURGESS, M.B.

Read before the Canada Medical Association, at Ottawa, September, 1880.

Mr. President and Gentlemen,—The paper that I have prepared for your consideration deals with a class of plants, which, whether considered with reference to their beneficent or toxic effects on the human race, should be known to every practitioner—I refer to the various species of *Rhus*.

The most noteworthy example of this genus in our own country, and the one to which the greater part of my remarks will apply, is commonly called poison ivy. So far as my own knowledge extends, but little is known of this plant to the profession at large, except through cases of poisoning by it presented for treatment. Now, when we consider how common it is, and the number of persons liable to exposure to its noxious influence,—the labourer engaged in railway work and in clearing bush-land, the farmer working about his fences, one of its favourite lurking places, and the child so often employed in gathering the wild flowers with which our woods abound,—I cannot impress on you too strongly the necessity for a thorough knowledge of the various species, their appearance, and that of the plants with which they are most likely to be confounded, and their physiological effects, with the prevention and cure of these. Some of the varieties being used for domestic purposes and others in the practice of medicine, I will also draw your attention to their uses in the arts and their pathological effects, with the class of cases in which they have been found most beneficial when employed as medicines.

The only representative of the large order, *Anacardiaceæ*, the Cashew family, in northern North America, is this genus *Rhus*, a name derived from the Greek verb *ῥέω* (*reo*) "to flow," so called because it was thought to be useful in stopping hemorrhages. And, truth to tell, the name was not inaptly applied by our forefathers, all the varieties being possessed of more or less astringent properties, some of them in a very marked degree. The genus, to the non-botanical commonly known as sumach or shumach, is composed of trees or shrubs having a resinous or milky acrid juice; alternate leaves; small, regular, greenish-white or yellowish flowers; and a fruit forming a sort of dry drupe.

No less than fourteen varieties of *Rhus* are, or have been used in the arts and sciences (the term including medicine), and these I shall, for

convenience of description, divide into two classes, native and foreign, dismissing the latter with but a brief mention of their uses.

Of the foreign species there are six :

Rhus Cotinus, sometimes cultivated in our gardens for ornamentation, under the names "smoke plant," "purple fringe-tree," and, from the curious appearance of its seed vessels, which look like a powdered wig, "perriwig-tree," is known in commerce as Venice sumach. It is a small tree with purplish-green flowers, supported on hairy peduncles, and is a native of Siberia, Austria, and Northern Italy. It is not used in medicine or pharmacy, but yields one variety of a wood known in trade as *fustic*, which has been largely employed for producing a yellow dye. A noticeable peculiarity about this species of *Rhus* is, that its leaves are simple, like those of the elm and maple, and not compounded, like the horse-chestnut and ash, as is the case with the rest of the genus.

Rhus Coriaria.—Of this, both the leaves and berries have been used as astringents and tonics, and the ground twigs as a dye-stuff. It is a native of the Ukraine, in Russia, and has been regarded by the inhabitants of that country, combined with a decoction of *Genista Tinctoria* leaves, as a preventive of hydrophobia. It is employed both internally and locally, and the peasantry have great faith in its curative virtues, but extended trials in other parts of Europe have shown it to be useless in this much-dreaded affection.

Rhus Succedanea is indigenous in Japan. From its berries is expressed a wax sometimes used in pharmacy, known as Japan wax. It is of medium quality, ranking between beeswax and the ordinary vegetable tallows.

Rhus Vernicifera, varnish or Japan sumach, inhabits India and Japan, where it is highly prized for its yielding, from incisions made in the stem, a gum from which is made one of the best of varnishes.

Rhus Metopium is found in the West Indies, chiefly Jamaica, and is said to be one of the sources of "hog-gum" so extensively used by bookbinders in the process of marbling paper. This peculiar, and certainly not euphonious, name is derived from the fact that hogs, when wounded, are reputed to rub themselves against this tree, so as to cover the wound with its juice, and form a protection against the irritation of insects.

Rhus Semi-alata, a native of China and Japan, yields a gall largely used, especially by the Chinese, in dyeing their celebrated yellow silks. It is also highly esteemed by them as an astringent medicine.

Of the native species of *Rhus* there are eight, and, not to afflict you with their scientific distinctions, I will classify them as poisonous and

non-poisonous, chiefly confining my botanical descriptions to the poisonous class, it being most important, both in a diagnostic and prophylactic point of view, to be able clearly to distinguish these from certain non-poisonous plants resembling them. The eight species are equally divided, four being innocent and four highly noxious. And first, let me draw your attention to the non-poisonous varieties, meaning by this, non-poisonous by contact with the plant, for, if administered internally in large doses, even the innocuous ones act as irritants.

Rhus Aromatica—fragrant sumach—is a straggling bush with three foliate, hairy leaves; the pale yellow flowers, in clustered spikes like catkins, precede the leaves, which are sweet-scented when crushed. It extends from Lake Superior westward and southward, in dry rocky soil, a variety, the *Rhus Trilobata* of Nuttall, chiefly affecting the Rocky Mountains and Sierra Nevadas. This plant has, during the past two years, whether justly or not I cannot from my own experience say, obtained a high reputation as an astringent, and is at present being lauded in journals devoted to *Materia Medica*. In hæmaturia and chronic cystitis, where the ordinary remedies—ergot, gallic acid, and muriated tincture of iron—have failed, it is said to have been used with the happiest results. In phthisis, though not advanced as at all curative, it has a favourable effect in checking the hæmorrhage, night sweats, and diarrhœa, often so exhausting and distressing. Five to twenty drops of the fluid extract may be given every hour in extreme cases of hæmorrhage, and lessened as relief is obtained. For the diarrhœa fifteen drops may be given after each stool, while the night sweats are best treated with a dose of ten to twenty drops each night at bedtime. In the diarrhœa of children, where the stools are frequent, the pulse soft and feeble, the skin pale, the eyes sunken, and there is loss of flesh and general sense of lassitude, it is by some regarded as invaluable. Its use is also advocated in menorrhagia, dysentery, and diabetes insipidus, but it is in enuresis (incontinence of urine) that it has gained its highest reputation. Dr. Cooper, of Bellefontaine, Ohio, regards it almost as a specific in this complaint, and in the November, 1879, number of "*New Preparations*" records a number of cases cured by its use. From the strong testimony to its value, I would urge upon you, who are much more likely to see cases of this not uncommon affection than one engaged in Asylum practice, to give it a fair trial if you have not already done so. It is given in fifteen-drop doses four times a day, the last being administered just before retiring, till improvement takes place, when only the night dose is given, and continued until the habit is cured. At the same time, the patient

should strictly adhere to the rules of drinking but little during the evening, and voiding urine just before going to bed. The best form for use is the fluid extract, and a nice formula for its administration is :

R Fl. Ext. Rhus Aromatica ℥i.
 Glycerine ʒss.
 Aquæ. ad. ʒiv. M.
 Sig. ʒi four times daily.

Several medical friends, who have been using this drug in various affections, have furnished me with records of cases treated by it, which may be thus tabulated :

Disease.	No. of cases tr'ted	Result.
Chronic Cystitis	1	Much improved.
Phthisis.	5	In all, attacks of diarrhœa and night sweats were relieved.
Diarrhœa of Children	9	Six cured ; three died.
Diarrhœa of Adul'ts.	2	One cured ; in the other the drug seemed to have no effect whatever.
Menorrhagia.	5	In all there was a wonderful effect in checking the discharge at the time. In three cases, after use at two menstrual periods the discharge was normal, and has since, now five months, continued so. The fourth case is improving, but the fifth shows no radical change.
Enuresis.	3	Two cured ; one improved.

This record speaks strongly in favour of an extended trial of the remedy in the class of cases enumerated, though its greatest benefit would seem to be shown in menorrhagia and enuresis.

Rhus Glabra, variously known as sleek, smooth, Pennsylvania and upland sumach, officinal in the United States' Pharmacopœa, is found over the greater part of North America, south of the Arctic circle. It is a shrub two to twelve feet high, with straggling branches, covered with smooth, light gray or somewhat reddish bark. The compound leaves, consisting of eleven to thirty-one leaflets, whitened beneath, in autumn change to a beautiful red. Growing along fences, borders of woods, and in rocky fields, its flowers open about July, and the fruit, often eaten by the country people, ripens in early fall. Excrescences produced on the under surface of the leaves have been used as a substitute for the officinal galls obtained from the oak, *Quercus Infectoria*. Like galls, these excrescences are due to puncture of the young shoots by a hymenopterous insect to deposit its eggs. This irritates the part, and a tumor

arises, the result of morbid growth. The eggs enlarge with this growth, and are converted into larvæ, which feed on the vegetable matter. Finally the larvæ become flies, and escape by eating their way out. For use, these excrescences should be collected when of full size, just before the eggs are hatched. All parts of this plant contain a large amount of gallo-tannic acid, and the bark is often used in tanning. The berries have a sour astringent taste, and owe their acidity to malic acid, which, according to Mr. Cossens, is not contained in the berries themselves, however, but in the pubescence which covers them. An infusion of the fruit has been used as a refrigerant drink in febrile complaints, and as a detergent astringent gargle in common and ulcerated sore throat. It has also been employed with great success in mercurial ptyalism, but for this, an infusion, or still better, a fluid extract of the inner bark of the root, is best adapted. The fluid extract also possesses tonic properties, and may be used in doses of $\frac{1}{2}$ –1ʒ.

Rhus Copallina, dwarf sumach, mountain sumach, or the Gum Copal tree, is a shrub with running roots, one to seven feet high, inhabiting rocky hills. Its branches are downy, and the petioles between the leaflets are wing-margined. Gum copal, so largely employed in making varnishes, is the product of a number of different trees, one of which, according to some authorities, is the *Rhus Copallina*. This plant possesses similar, but less strongly marked, medicinal properties to *Rhus Glabra*, and may be used as a substitute therefor.

Rhus Typhina, staghorn sumach, grows very commonly throughout Canada along railway tracks and on sterile hill-sides. It forms a tree ten to thirty feet high, with orange-coloured wood. The branches and stalks are densely, velvety hairy, with serrate leaflets, pale beneath. This, the fourth and last of the innocuous native species, also possesses properties similar to *Rhus Glabra*, and may be substituted when that plant cannot be had.

Of the four indigenous species which possess poisonous properties, one is an inhabitant of the southern States, and a second of California, while the third and fourth are common in all parts of North America, between the 35th and 60th parallels. Since their poisonous, and probably their therapeutic, effects are similar, I will first give a short description of each species, and devote the remainder of my remarks to the physiological and therapeutic actions of *Rhus Toxicodendron*, the common form of poison ivy in Canada.

Rhus Pumilum, growing only in the southern States, and very common in North Carolina, is a pubescent shrub, about a foot high, said to be the most poisonous of the Eastern varieties.

Its pinnate leaves, consisting of about eleven oblong, coarsely-toothed leaflets, are downy beneath. The three upper leaflets are often confluent, the terminal one, when distinct, being attenuate at the base. The flower panicles are nearly sessile, while the drupes are covered with a red, silky pubescence.

Rhus Diversiloba of Torrey and Gray, or *Rhus Lobata* of Hooker, approaches very nearly to *Rhus Toxicodendron*. It is generally a shrub, but sometimes a climber, and is said to be the most poisonous of all the *Rhus*es. It is chiefly a native of California, where it is known by the Spanish name of "Hiedra." Its leaves consist of three, rarely five, obtuse, lobed leaflets; its flower panicles are shorter than the petioles; and its fruit is white and pubescent. With her usual generosity, Nature, according to Dr. Canfield, provides an antidote to poisoning by this species, in the shape of another Californian plant, the *Grindelia Hirsutula*, of which either the bruised plant itself, or a decoction, is applied to the parts.

Rhus Venenāta, formerly called *Rhus Vernix*, is known by the different names of poison dogwood, poison elder, poison ash, poison sumach, swamp sumach, white sumach, and varnish tree. Affecting rich, swampy ground in shaded situations, it is a shrub or small tree usually growing from six to eighteen feet high, and one of the largest of our native species of *Rhus*. The trunk seldom exceeds three inches in diameter, and, branching at a height of three to five feet, usually makes a repeatedly two-forked ramification, the final twigs terminating in thick clusters of leaves. The smooth bark is dark gray on the trunk, lighter on the branches, and reddish on the twigs and petioles. The leaves, expanding in May, are at first dark yellow in colour, but become deep green with a paler under surface when mature, and finally, at the first touch of frost, assume a beautiful deep crimson hue, that can fairly vie with the maple for brilliancy of effect. The seven to thirteen leaflets forming the compound leaves are obovate oblong in shape, and entire. The small yellowish flowers are arranged in loose and slender axillary panicles, forming large masses of fragrant bloom, at the ends of the branches, which attract innumerable swarms of bees. Whether the honey derived from this source possesses any poisonous properties I am unable to say, but, as at various times there have been reports of poisoning by honey in particular localities, it would be a point well worthy of investigation whether this form of poison ivy does not also abound there. The berries, ripe in October, are whitish or dun-coloured, with striate stones, and look somewhat like bunches of small grapes—a similarity, however, which is immediately dissipated by the slightest glance at the

leaves, in the grape *simple*, in the *Rhus compound*. Taken altogether, this tree makes one of the handsomest shrubs imaginable when in blossom, but is, unfortunately, one of the most deadly. *Rhus Venenāta* has been thought to be identical with the *Rhus Vernicifera* of Japan, and when incisions are made into its bark there is a copious flow of viscid fluid, yellowish at first, but soon changing to a deep black, which, when boiled, makes a fine varnish. The poisonous properties of this tree are said to be more powerful than those of *Rhus Toxicodendron*; persons exposed to its influence being more apt to suffer, and more severely. I have known several cases of poisoning due to this plant being mistaken for the common elder, an error which could never arise were the fact borne in mind that both varieties of elder, found in this country, have the margins of the leaves toothed, whereas in *Rhus Venenāta* they are entire. In addition, the elders have dense masses of flowers, and a fruit which, when ripe, is either red or black, while this form of poison ivy has slender, scattered bunches of flowers, and a fruit whitish in colour when mature.

Rhus Toxicodendron may be made to include *Rhus Radicans*, as botanists are now pretty well agreed that it is merely a variety of the former; its differing form and characters, viz., more entire leaflets and high climbing stem, being dependent on the circumstances of its *habitat*. *Rhus Toxicodendron* was first described in 1635 by Cornutus, in his works on Canadian plants, as a species of ivy. The Indians were well aware of its properties, and its effects were mentioned by Kalin and other travellers in North America. Poison oak, poison ivy, poison vine, poison creeper, and sometimes poison mercury, are names applied to it. It is found within the same range of territory as the *Rhus Venenāta*, and is by far the commonest form throughout Canada. It generally grows in fertile and low grounds, but will thrive in barren and elevated places, and attaches itself to any bodies in its vicinity by numerous thread-like rootlets given off from the stem. Sometimes it climbs spirally to the tops of our tallest trees, attaining a height of 40 or 50 feet, again, it is met with along the sides of fences which serve as a convenient support, or crawling over brush, or rocks, or along the ground, in which cases it never exceeds from one to three feet in height. This low form sends off many small branches, the pendulous extremities of which often give the plant a bushy appearance. The stems are from one-quarter to two inches in thickness, and covered with a grayish-brown bark. The leaves, which are said to be eaten by cattle with impunity, are trifoliate; the leaflets being

rhombic ovate, pointed, pubescent beneath, and variously notched, of a shining red when they first appear in the spring, but bright green at maturity. The flowers are small, greenish-white in colour, and disposed in simple axillary racemes. The fruit is a round dry berry, as large as a pea, of a pale green colour, ripe in October. Like *Rhus Venenāta*, from the bark, when wounded, exudes an acrid, milky juice, which, exposed to the air for a few hours, changes to an intense black, which will leave indelible stains on linen or cotton, not effaceable by any known chemical, and which has been used as a marking ink. According to Dr. Jos. Khittel, the principal chemical constituents of poison ivy are gallo-tannic acid and a volatile alkaloid, to which it owes its poisonous and medical properties. The later researches of Prof. Maisch, however, have proved that the acridity of the juice is due to the presence of a hitherto unknown volatile acid, analogous to, but distinct from, formic and acetic,—Toxicodendric acid, which, when isolated, is found to affect the skin, either by direct contact or by its vapour, exactly as the fresh plant itself does, proving beyond doubt that the poisonous properties of the plant are due to it. This principle is in great measure dissipated in the process of drying, and hence dried preparations of the plant are much less apt to act noxiously, though even these should be handled with great care by such as are susceptible to poisoning by it. The plants for which *Rhus Toxicodendron* is most often mistaken are, the Virginian Creeper or American Ivy (*Ampelopsis Quinquefolia*), with which the climbing variety often entwines itself, and the *Aralias*, *Nudicaulis* and *Quinquefolia*, commonly known as Wild Sarsaparilla and Guiseng, often found growing with the low form. These plants are very easily distinguished if one will take the trouble to remember a single simple distinctive mark, viz., five leaflets on a single leafstalk, whereas *Rhus Toxicodendron* has only three. Other distinguishing marks are, that the *Aralias* have regular serrate leaves, and in *Nudicaulis* the flower stem is separate from the leaf-bearing one.

Physiological Action.—The toxic effects of the poisonous species of *Rhus* are produced in various ways and degrees of severity, but in all cases they are due to absorption by the system of toxicodendric acid. They may be the result of direct contact with any part of the plant or any pharmaceutical preparation of it; of inoculation with the juice; of exposure to smoke from the burning wood; of inhaling the steam arising in making preparations of it; of internal use; and lastly, of emanations from the growing plant. The only one of these methods of poisoning specially noteworthy is

that by exhalations from the living plant itself. According to Cazin, such exhalations are only given off when the plant is not exposed to the sun's rays (as when it grows in the shade and during the night), and consist of hydrocarburated gas mixed with toxicodendric acid in a volatile state. That they will cause poisoning in those exposed to their influence, without actual contact with the plant, and even at considerable distances, is now well authenticated, though some, even noted scientists, would seem still to doubt this fact. Thus, Wyville Thompson, of the late *Challenger* exploring expedition, states, that among the blacks of the West Indies there is a superstition that some species of *Rhus* will poison without actual contact. Aboriginal traditions will rarely be found to exist without some foundation, and in this case, so strong a one that it should have prevented the report being called a superstition. I could cite a number of instances of poisoning without contact, both recorded and coming under my own notice, but one or two will suffice. "A lady of known susceptibility was attacked after being out driving, though she had never left the vehicle, which kept the centre of the road. Here the nearest distance of possible exposure would be that of plants growing, where they were afterwards discovered, along the fence, a distance of over twenty feet." A medical friend of mine experienced a severe attack after passing, at a distance of at least three feet, a thicket in which grew a mass of the plant; while a gentleman so noted in the scientific world as to vouch for the accuracy of his powers of observation, while engaged in geological researches, found to his cost the effect of passing some, though he had previously noted it, and was hence most scrupulous not to let it touch him. It seems to me too, that the discovery of this method of poisoning by *Rhus* is peculiarly interesting, as offering a plausible solution of what are generally regarded as fabulous stories of the deadly effects of the upas tree of Java, under which the wearied traveller laying himself down sinks into a sleep from which he never awakens. Is it not quite possible that there is a native Javanese tree possessing similar, perhaps stronger, noxious properties to the *Rhus Toxicodendron*, and thus capable of poisoning its surrounding atmosphere?

The poisonous effects are both local and constitutional, according to the idiosyncrasy of persons; acting upon some only locally, upon others only constitutionally, and upon yet another, and the most frequently met class, in both these ways. A certain constitutional predisposition is requisite for the occurrence of poisonous symptoms, many individuals being quite insusceptible. I myself am a case in point, having often rubbed the *Rhuses Venenāta*

and *Toxicodendron* and their juices over my hands and face, without suffering the slightest inconvenience thereafter. This is perhaps the more remarkable, as in summer I am subject to urticaria, and one would imagine that a constitutional predisposition to the one would be likely to predispose to the other. To illustrate the peculiar virulence of this plant toward some constitutions, I might state that the celebrated chemist Fontana, knowing himself to be easily poisoned by it, and wishing to examine into its properties, caused specimens to be got ready by another person, but accidentally touching one of the leaves, under some water into which it had dropped, in a short time began to suffer from its poisonous effects. This susceptibility varies greatly under certain conditions of animal and atmospheric temperature. In some persons a difference is observable when in a warm or cold climate, and some suffer only on very hot days; while with others, climate and season of the year seem to have very little influence. Children are much more liable to be poisoned than adults, and females than males. When the skin is moist the poison is more readily absorbed. A gentleman who had often handled the plant with the greatest impunity, experienced his first attack through rubbing against some of it while his skin was still undried after bathing, and though he has several times since rubbed the plant over the dry skin, has suffered no ill effect. For this reason also, persons perspiring, especially if fatigued, are more liable to be affected.

Instances are related in which a periodical return of the symptoms of poisoning, without fresh exposure, has occurred for a number of years. This is doubted by some, who ascribe the succeeding attacks to fresh exposures of the victims to the plant's emanations, without their own knowledge—a view strongly leaned to in an article published in the August, 1876, number of the *Canada Lancet*. In it the poisonous emanation is thus spoken of:—"Being volatile, it may be readily diffused, and, like malaria or the cause of hay-asthma, may act under favourable circumstances, as of aerial currents and susceptibility in the recipient, at a considerable distance from its source. Now it is well known that no protection is conferred by a prior attack, and hence it might reasonably happen, that a person having suffered from ivy poison one season, would also suffer the next by reason of susceptibility, even though scrupulous precautions should be taken to avoid direct exposure. In such a case the diffused emanations might be sufficient as an exciting cause to account for the recurring attack. It is to be noted that the so-called recurring cases always take place during the summer season, and at

the period of the plant's poisonous activity, but never in the winter, which lends support to the supposition of the exciting cause being diffused in the atmosphere." The case I have before quoted, of the lady poisoned while out driving, is cited as a case of what would have been called a recurrent attack, had the source of the fresh exposure not been found along the fence side. These plausible arguments do not however, to my mind, clear up all the reported cases of recurrence. A gentleman was poisoned one year in this country and the next he went to Europe, where, at the same season of the year as that when he was first poisoned, most of the symptoms returned. Now, being in Europe, he could not be exposed to the noxious emanations of poison ivy, and the opponents of the recurrent theory would have to fall back on the far-fetched argument that he might have been exposed to noxious effects, resembling those of poison ivy, from some poisonous shrub of Europe. Further, in some cases the eruption is said to have returned annually for several years, and one can hardly imagine a person suffering a number of consecutive attacks without noting his fresh exposure in at least some of them. Whether recurrent or not however, one fact seems to be clearly established with regard to these attacks, viz., they are modified from those depending on direct exposure, the eruption, which partakes more of a papular than an erysipelatous character, spreads less and is accompanied by only very slight swelling, while the attack is difficult of cure and prone to run a chronic course.

The effects of Rhus are chiefly marked on the cutaneous, nervous, digestive, urinary, and muscular systems, and no matter how produced, are experienced soon after exposure, and, as a rule, begin to decline within a week. They are, violent itching, redness, burning, and erysipelatous swelling of the parts subjected to its influence. The face and hands are most apt to be affected, in some cases the swelling being so great as to obliterate the features, but any part of the body may present similar appearances. The itching, which is certainly the most distressing of the symptoms, is not confined to the patches of inflammation, but diffuses itself over the entire surface of the body, the hairy portions being specially affected. Subsequently there is vesication, followed by desquamation of cuticle. The induced condition is superficial, but prone to spread rapidly, and may involve large areas of the body. In very severe cases it may even extend to the mucous membranes, as indicated by redness and swelling of the throat and mouth, thirst, irritable cough, nausea, vomiting, and colicky pains in the abdomen. Diarrhoea frequently ensues, accompanied by tenesmus and bloody stools, and there

is sometimes retention of urine, or diuresis and hæmaturia. Rhus also induces rheumatic pains in the limbs, joints, and lumbar region, with sometimes numbness in the lower extremities. These pains are accompanied by a very slight swelling, and are intensified by rest and warmth, so that sleep is greatly disturbed. In ordinary cases the temperature is but very slightly raised, while in the most severe that I have noted I have never seen an increase of more than 2° Fahr. The fever which sometimes accompanies the effects of Rhus generally partakes of a typhoid character, but is sometimes intermittent, and then usually marked by profuse perspiration. The above effects are rarely all present, or present in a severe degree, and would appear to be very seldom, if ever, fatal. The treatment should be lowering, and should consist of rest, low diet, and laxatives. To allay the local itching, the great source of discomfort, weak alkaline solutions and saturated tincture of lobelia have been recommended, while Wood has used vinegar with happy results. Yellow wash, a decoction of white oak bark, and extracts of *Grindelia robusta* and *squarrosa* have been considered specifics, but the most recent authorities recommend a solution of carbolic acid of the strength 3ss to 3ij of glycerine. In my own practice I have had the treatment of a very large number of cases, and my usual course has been to put the patient to bed on low diet, keeping the bowels loose with Epsom salts, and apply locally, on lint covered with oiled silk, a solution of acetate of lead, 3ij to a pint of water. Under this treatment, the extreme duration of confinement in bed has never exceeded five days, though uncomfortable sensations in the skin have remained for some time after. In a few cases I have used the carbolic acid lotion, but the result has never been as satisfactory as when acetate of lead was employed.

For the modified recurrent form of poisoning, where papules replace the vesicles, I know no better treatment than to put the patient on iodide of potassium and paint the parts affected with tincture of iodine, care being taken when it seems indicated, to improve the general health by good food and the free use of tonics of quinine and iron.

Of poisoning by the internal use of Rhus there are two cases on record: in one, two children, aged respectively six and eight years, ate the berries; and in the other, three persons, a boy aged twelve, and two girls aged fifteen and seventeen, took an infusion of the root in mistake for one of saffrafas. In a few hours there was drowsiness and stupor, followed by vomiting, convulsions, and delirium. The pupils were dilated, the pulse was frequent and feeble, respiration was hurried, and in some of the cases there was a vesicular eruption over the

body. All these persons recovered after varying intervals. The antidotes recommended for poisoning by internal use are, strong coffee, camphor, and buttermilk, to which might be added as well worth a trial the fluid extract of *Grindelia robusta* or *squarrosa*. The stomach should be emptied before the use of antidotes by ipecac., and the bowels should be freely moved by enemata of soap and water. If there is a tendency to stupor, the patient should be kept moving about.

The prevention of poisoning by the Rhuses should be strongly impressed on the community at large. Every one should know the distinctions, which I have already given, between the various species and the plants with which they are most liable to be confounded. Being worthless, and of little value except medicinally, and even there probably much overrated, they should be extirpated by every thrifty farmer. A strong alkaline solution, used immediately after exposure, will often prevent the poisonous effects of the Rhus on those known to be susceptible, while anyone obliged to work near poison ivy should smear the face and hands freely with sweet oil, or some other form of grease, when no ill effects are likely to follow.

The *therapeutic action* of Rhus Toxicodendron is tetanic, stimulant, narcotic, diuretic, diaphoretic, laxative, and alterative. It was first introduced as a medicine by Du Fresney, a French physician, and lecturer on Botany, in 1788. The following anecdote, which may be new to some of you, is related by him as the means which first drew his attention to its medical virtues: "One day when lecturing on Rhus at the botanical garden of Valenciennes, a mischievous student said to a young florist who was present, that the professor's account of the noxious properties of Rhus was incorrect, as the plant, grown in France, was perfectly innocent. To convince him of this he plucked some leaves and rubbed them freely on his hands, as he knew by previous experience he could do with impunity. The florist, thus persuaded, followed his example, but in a short time had occasion to repent his imprudence. The next day, finding himself in trouble, he consulted the student, who gravely assured him he had caught the itch somewhere, and advised him to rub into his hands half an ounce of citrine ointment, and to purge himself freely with mercurial pills. This, as you may imagine, did not mend matters, and finally Du Fresney was made acquainted with the state of affairs. In about ten days the young man recovered from the effects of the Rhus, and to his great surprise found, that a chronic eczema of six years' standing, for which he had vainly sought relief, had disappeared at the same time." This led Du Fresney to experiment further, and

pemphigus, eczema, and other obstinate skin diseases were found to be benefited by its use. In erythema and erysipelas, especially when accompanied by vesicles and bullae, *Rhus Toxicodendron* is, according to Dr. Phillips, of Westminster Hospital, London, England, without question a very useful remedy. In some sub-acute and chronic rheumatic affections of the fibrous tissues it is a powerful therapeutic agent. The synovial membranes seem to be less amenable than the tendons, ligaments, and fascia outside of them. It should be applied externally, in the form of lotion, with compresses, and be given internally, in small doses, every two to four hours. In old cases of paralysis, dependent on a torpid condition of the nerves, it is said to have produced beneficial results, the first symptoms of improvement being a pricking and twitching in the paralyzed parts, followed by return of sensibility and motion. It has done good in some cases of amaurosis and other nervous affections of the eyes. A curious statement by Du Fresney and others, that persons not constitutionally susceptible to *Rhus* poisoning by external application, are not so likely to derive benefit from its internal use, must be accepted with caution. Dr. Piffard, Professor of Dermatology to Charity Hospital, New York, states that he has handled the poisonous varieties and daubed their juices on his skin with impunity, but has experienced decided physiological effects from their internal use in very small quantities.

Probably all parts of *Rhus Toxicodendron* are active, but only the dried leaves, *Toxicodendri Folia*, are used in pharmacy, and were included in the second edition of the United States' Pharmacopoea. They have a mawkish, acrid taste, yield their virtues to water, and are, when fresh, reasonably active. If long kept however, they become comparatively inert, owing to the volatility of the active principle, and cannot be depended on, and it may be owing to this fact that the drug has fallen into disuse. The dose of the powdered leaves is from $\frac{1}{2}$ to 2 grains, cautiously increased until some obvious effect is produced. A tincture, made by macerating one part of fresh leaves in two parts of alcohol, furnishes a very active and efficient preparation in doses of a small fraction of a minim, but in the language of Professor Wood, "the risk of experiencing the poisonous effects of the plant on the system, will probably prevent its extensive employment as a remedy, unless it should prove much more useful than the weight of evidence hitherto adduced, gives us reason to expect."

There are now upwards of 3,000 coffee taverns in England. Temperance people would do well to encourage the establishing of these in Canada.

A CASE OF DISEASE OF THE ELBOW JOINT, WITH RESECTION.

BY W. CANNIFF, M.D., M.R.C.S., ENG.

M. L., a native of Ireland, aged 32, was admitted to the General Hospital, Toronto, on the 15th August, 1879, to be treated for a chronic disease of the right arm, involving the elbow joint. The history of the case as given by the patient was briefly as follows: He had always enjoyed excellent health, and never suffered from any disease whatever. In the early part of the summer of 1878, he accidentally knocked the elbow of the right arm against the edge of a door, which caused some pain and swelling. The arm did not recover, the pain continued, the motion of the arm was impaired, and in pursuing his daily work he had to be careful how he moved the limb. On the 12th of April, 1879, he met with a more severe accident. While engaged in removing cord wood from a railway car he fell from the top to the deck of a steamboat, the weight of the body coming upon the affected elbow. This was followed by a good deal of pain and swelling which did not subside. A month later the swelling remained, and power to move the arm was mostly absent. He was at this time treated for rheumatism; but, seemingly, little or no attention was given to the arm itself. Three months later an abscess had formed over the olecranon process, and had been allowed to break. He now came under the care of another doctor, who ordered poultices to the arm, which were continued for a month. No improvement in the condition of the arm followed this treatment, and the doctor then satisfied himself with advising the patient to keep the limb softened with fresh lard. It is to be noticed that no attention was given to *rest* or *position* of the limb. He received no further treatment until he entered the hospital.

When he came under my care the arm presented a very unpromising appearance. It was much swollen from the middle of the humerus to the finger ends. Several openings existed around the elbow, the tissues were indurated, and the skin presented a livid appearance, especially on the posterior part of

the joint. The motion was so limited that it could scarcely be discovered. The whole limb presented an unhealthy appearance such as arises from long-continued passive congestion. The forearm was pronated, and the power to rotate was lost. The wrist joint could be moved with some difficulty; but the fingers were more flexible. A probe passed along any one of the several sinuses, came in contact with denuded bone, which was sufficiently firm to beget the belief that necrosis had taken place. The joint was so out of its natural form, and the tissues so infiltrated with fibrinous matter that it was impossible to determine the condition of the joint; but there seemed good reason to believe that the head of the radius had perished, while the adjacent osseous structures were in a state of caries or softened, and presumably the tissues of the joint had become more or less disorganized.

The first step in the treatment was to restore the tissues of the forearm to a more healthy condition. The patient seemed to be perfectly healthy, and I at no time deemed it necessary to administer any medicine. The limb was placed in an elevated position, and pressure by bandages was gradually applied. This was continued for nearly two months, and as a result the arm gradually assumed a more healthy appearance. Meanwhile abscesses repeatedly formed around the elbow and upon the anterior and inner portion of the arm. At the elbow the enlargement and induration continued. The time had now arrived when it seemed proper to undertake some operation; but the uncertain state of the joint, and the condition of the soft parts did not offer much, if any encouragement for performing excision. Moreover, the contraction of the biceps did not have any effect upon the forearm; the tendon below the elbow was either destroyed or had become so attached to, and incorporated with the morbid structures, that the muscle was practically useless. In fact all the muscles of the forearm were seemingly useless, having become agglutinated together. Therefore should, in operating, the whole joint be removed there seemed little hope of having the function restored so as to give a useful limb. Under the circumstances it was decided

to cut down upon the head of the radius, remove dead and disorganized bone, and then place the limb in the most useful position, and endeavour to secure ankylosis.

An incision through the soft parts revealed the fact that no dead bone existed, but there was an abundance of new osseous tissue in connection with the obecranon process. The head of the radius however was not found. A good deal of this bony material was gouged away, and the whole thickness of the bone was finally divided by the bone pliers. The limb was then fully flexed by using considerable force. The intention of retaining the limb in the flexed position had to be abandoned. Although there was little suppuration in the wound itself, after a few days severe inflammation took place in the forearm, and above the elbow on the front and inner parts of the limb. This was, doubtless, due to the breaking up of adhesions when the limb had been forcibly flexed. The abscesses were duly opened; but the limb could no longer be flexed on account of the great pain produced when it was attempted, and the limb gradually straightened out almost as much as before the operation. Attempts were made again and again to bring the forearm up, but the patient could not endure it. The cause of this will be explained hereafter. At the end of three months from the time of operating, the limb was pretty much in the same condition as before. At a consultation of the Hospital staff on the 21st of January, the propriety of resecting or amputating was considered. It was, however, decided that an attempt should again be made to bring the arm into a more useful position, without the use of the knife. The patient being under the influence of ether, the forearm was, with some effort, placed at right angles with the arm; but at the same moment it was found that the soft parts over the obecranon had given way, making a gap of about three inches by two, and exposing the interior of the diseased joint. Notwithstanding the unfavourable appearance of matters, I decided at once to make an effort still to save the arm, and proceeded to excise the ends of the bones. A vertical incision was made above and below the already divided tissue,

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The benzoate being very soluble, easy of digestion, harmless to the stomach and nervous system, and quickly eliminated by the kidneys, may be administered in large and continuous doses. He has given 15 to 20 grammes (3iv to 3v) for 8 or 15 days without any inconvenience, except, perhaps, profuse perspiration, copious urination, and at times some vesical irritation. The tissues should, as it were, be saturated. To do this 5 grammes (3i) in solution should be given in 24 hours to an infant 1 to 3 years of age; 10 grammes (3iiss) to one of 10 years; and 20 grammes (3v), on an average, to an adult. In addition, the throat should be continually and thoroughly washed with some antiseptic solution, such as carbolic acid, chlorate of potash, or, as he prefers, the benzoate in a 5% solution.

To sum up, in the past 15 months he has treated 45 cases of diphtheria, 28 of which were severe. Being guided by the rise and fall of the temperature, he is firmly convinced that the happy result is due in a large measure to the treatment adopted. He considers that although he may not always obtain such complete results in another series of cases, yet it appears demonstrated that in the benzoate of soda we have an appropriate and often a triumphant remedy.

MULTIPLE OFFICIAL COUNTERPOISON.

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This mixture should be administered *coup sur coup*, in doses of 50 to 100 grammes.

Employed in suitable proportions, it renders insoluble the preparations of arsenic, zinc, and digitaline; it does not render completely insoluble the oxide of copper; it leaves in solution appreciable quantities of morphine and strychnine. It does not decompose and does not precipitate the cyanide of mercury nor tartar emetic; it entirely saturates free iodine; it acts only partially upon solutions of the alkaline hypochlorites.

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This formula is preferable to the official hydrated peroxide of iron, since the latter undergoes, by the action of time, at a temperature higher than 15° cent., a molecular modification which renders it untrustworthy against the arsenical preparations.

This formula, like the peroxide of iron extemporaneously prepared, the hydrate of magnesia and animal charcoal, satisfies as a counterpoison a great many indications. It is, however, inefficacious against the mineral alkalies, phosphorus, the hypochlorites, the cyanides and tartar emetic.

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1. Laryngismus Stridulus, or false Croup, is an acute affection characterized by a motor disturbance of the glottis, and owning as a cause engorgement or rapid congestion of the tracheo-bronchial ganglions.

2. This affection is manifested by one or more attacks of sudden, sometimes frightful, dyspnœa, occurring most frequently at night, between midnight and 4 a.m., sometimes during the day, with acute, noisy, inspiratory whistling, and hoarseness of cough, whilst the voice is generally clear; congestion of the face, with or without febrile movement, and absence or rarity of expectoration.

3. It is usually preceded by a slight nasal, pharyngeal or laryngo-tracheal catarrh, consecutive to a rapid chilling. It is often followed by a little cough.

4. It affects children from one to seven years of age, and particularly lymphatic ones, born of lymphatic, scrofulous or tubercular parents. It is compatible with an apparently flourishing state of health.

5. Relapses are not rare. Sometimes the affection is limited to a single, more or less violent, attack; often the attack is repeated on the one or two following nights, sometimes in the same night. But the spasms which succeed the first during the same attack are progressively less and less violent. Other attacks may manifest themselves in the course of the same and succeeding years under the same etiological conditions. But with the increase of age the

attacks diminish in violence, without, however, the essential cause (that is to say, the ganglionic engorgement of the mediastinum) being, on that account, the less pronounced. This appears to depend especially upon the size of the glottis, which, very small in early life, enlarges later on.

6. The prognosis may be very benign; but it may also be very grave, even up to the point of causing death by asphyxia in a relatively short space of time.

7. The commonest complications, when they occur at all, are: a more or less acute congestion of one of the apices, the apex precisely which corresponds to the side on which the adenopathy is most pronounced; a more or less intense bronchitis, with or without congestion of the bases, and these two complications are especially aggravated by the ganglionic engorgement in consequence of the obstruction which these hypertrophied glands import into the free circulation of the blood, and the nervous influx to the lungs, by compressing and morbidly exciting the nerves and vessels which environ them.

8. The laryngeal symptoms are produced through the medium of the inferior or recurrent laryngeal nerves, which are in direct relation in the thorax and along the trachea with the tracheo-bronchial glands.

9. The treatment is curative and prophylactic. It is necessary to treat the attack, and it is likewise necessary to treat the causes, known, at least nowadays, I trust, of the attacks—that is to say, the lymphatic temperament and greater or less constitutional weakness. Apart from the attacks, the treatment of which consists in emetics and cutaneous revulsives and in the administration of calmatives, the fundamental and prophylactic therapeutics is the anti-scrofulous treatment: Iodic preparations, cod liver oil, phosphatized milk seaside residence, &c.—*L'Union Médicale*.

ERGOT IN THE DYSENTERY OF CHILDREN.—Twenty-one cases of dysentery of children, reported by Dr. G. L. Magruder, of Washington, were treated with fluid extract of ergot: five to twenty drops four or five times a day. Almost every case immediately responded to treatment, and was either entirely relieved or much improved.

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6. The prognosis may be very benign; but it may also be very grave, even up to the point of causing death by asphyxia in a relatively short space of time.

7. The commonest complications, when they occur at all, are: a more or less acute congestion of one of the apices, the apex precisely which corresponds to the side on which the adenopathy is most pronounced; a more or less intense bronchitis, with or without congestion of the bases, and these two complications are especially aggravated by the ganglionic engorgement in consequence of the obstruction which these hypertrophied glands import into the free circulation of the blood, and the nervous influx to the lungs, by compressing and morbidly exciting the nerves and vessels which environ them.

8. The laryngeal symptoms are produced through the medium of the inferior or recurrent laryngeal nerves, which are in direct relation in the thorax and along the trachea with the tracheo-bronchial glands.

9. The treatment is curative and prophylactic. It is necessary to treat the attack, and it is likewise necessary to treat the causes, known, at least nowadays, I trust, of the attacks—that is to say, the lymphatic temperament and greater or less constitutional weakness. Apart from the attacks, the treatment of which consists in emetics and cutaneous revulsives and in the administration of calmatives, the fundamental and prophylactic therapeutics is the anti-scrofulous treatment: Iodic preparations, cod liver oil, phosphatized milk, seaside residence, &c.—*L'Union Médicale*.

ERGOT IN THE DYSENTERY OF CHILDREN.—Twenty-one cases of dysentery of children, reported by Dr. G. L. Magruder, of Washington,, were treated with fluid extract of ergot: five to twenty drops four or five times a day. Almost every case immediately responded to treatment, and was either entirely relieved or much improved.

Formularies.

TREATMENT OF CHRONIC ECZEMA OF THE PALM OF THE HAND, BY LUSH.

Especially if there is a rheumatic condition, the following lotion is almost specific and very soothing :—

Bicarbonate of Soda.....	3ii.
Bicarbonate of Potash.....	3i.
Glycerine.....	3i. to 3v.
Tincture of Opium	3ii.
Water.....	oi.

Lyon Medical.

FORMULÆ TO REDUCE CUTANEOUS CONGESTION IN ERYTHEMA, ECZEMA, URTICARIA, ACNE, &c.

R. Magnes Sulphat	3i.
Ferri Sulphat.....	3i.
Acid Sulphurici dil	3ii.
Tinct. Gent.....	3i.
Aquæ	3iii.
M. A teaspoonful after eating.	

TREATMENT OF ACNE.

R. Sulphur præcipitat	3i.
Etheris Sulphurici.....	3iv.
Spts. Vini Rect.	3iiiss.
M.	
Also—	
R. Sulphur præcipit.....	3i.
Tinct. Camphoræ... ..	3ii.
Glycerine.....	3ii.
Aq. rosæ	3iiiss.
M.	
Or—	
R. Potass Sulphuret	
Zinci Sulphat aa	3i.
Aq. rosæ.....	3iv.
M.	

The ingredients are each dissolved in one-half the water, forming clear solutions ; they are then mixed, and a white precipitate takes place. These lotions are to be well shaken and applied to the face at night, being allowed to dry on. We have used the following, taken from Niemeyer, with excellent results :—Mix sulphur with equal parts of glycerine, aquæ laurocerari and alcohol and sodæ carb. to make a thick paste, and apply as above. Dietetic and hygienic remedies and internal medication must always be used with the above local applications. The magnes. sulphat and iron mixture with sulphide of calcium pills in doses of $\frac{1}{4}$ grain four times a day is frequently indicated.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, NOVEMBER, 1880.

"NEWSPAPER ADVERTISING AGAIN."

Under the above caption our city contemporary, in his last issue, in taking occasion to exercise his prerogative of censorship of professional morals, animadverted very unfairly upon the misfortunes of our chief surgeon, Dr. Aikins, whose deservedly high reputation attracts reporters of our secular press to his public operations in the theatre of the hospital, and occasionally leads to a notice in their respective papers of some, to them, very wonderful operations performed by him. We, of course, would desire to deprecate in the strongest terms such pandering to a prurient public curiosity in professional matters, and we are sure that in so doing we can safely number Dr. Aikins amongst our most strenuous supporters ; and our objection to our contemporary's article, therefore, lies simply in the illiberal and unjust accusation levelled against Dr. Aikins—an accusation which he seeks to point by the statement that "Drs. Bethune, Ogden, Temple, Grasett, Canniff, Cassidy, and Fulton" are continually performing capital operations, "and yet no reporter has dared to make an improper use of their names." What are we to think, then, of the following announcement which appeared in the issue of the *Telegram* for the 20th ult., with reference to a private operation? "This afternoon Drs. Grasett, Temple, Bethune, and McDonald performed successfully the operation of removing stone from the bladder of Mr. J. W. Bridgland, of the Crown Lands Department. There were nine stones in all, varying in size from a large pea to a plum." Mr. Bridgland died in about

forty-eight hours after the operation. Surely our contemporary will not fail in this month's issue to fulminate his direst anathemas against the innocent or guilty occasion of this invasion of the sanctity of private life and professional decorum. Far be it from us to impute to the surgeons whose names the paragraph contains the most remote collusion with the ubiquitous reporter. We simply cite the passage to direct our contemporary's attention to the fact that, judged by his own criterion, his own colleagues could not be held immaculate, as he claims; and to suggest a little more charitable consideration in the future, since the decrees of fate are equal, and the misfortune which befalls one man to-day may be another's lot to-morrow.

PROPOSED PROVINCIAL MEDICAL ASSOCIATION.

As will be seen by the circular letter published below, there is a movement on foot to establish a Provincial Medical Association—a movement that seems likely to be successful. It has long been felt that the Canada Medical Association does not meet the requirements of the medical men either in the eastern or western parts of so large a country as our Dominion; and that when a meeting was held in one terminal part, very few members in the central or other portions could participate. Out of a professional body numbering something between three and four thousand, from fifty to a hundred were all that could be brought together at any one meeting. This fact, though to be regretted, has been in part due to the apathy of a large number who might have attended, but chiefly due to the expense, loss of time, and fatigue connected with a long journey. When a medical man attends an Association Meeting, he does so partly from duty, partly from pleasure, partly—and this should be the main reason—from an interest that all should take in the scientific progress of his profession. When one takes a holiday, one wants to leave the shop behind; and pleasant as it is to renew old associations and meet old friends, those that desire to do so are debarred from this even by the present state of affairs.

It has been urged as one reason why the Canada Medical Association should be better supported (and we have always regretted that it has not been), that local interests, especially in educational matters, should be done away with as not serving best the profession at large, and that by establishing a live Dominion Association, the greatest service would be done in that direction. This, we grant, would be desirable in every way if feasible; but time has shown that it is not so, and hence this project seems likely to accomplish, for Ontario at least, the desired end. Our columns will show that one or two County or Territorial Associations have been heard from favourably, and doubtless when others hold their meetings they will, as they ought, individually and collectively, enter heart and soul into the good work.

We are requested to call the attention of the profession to the matter; and Secretaries of Territorial or County Associations who have not received circulars will oblige by communicating with Dr. J. E. White, Carleton-Street, Toronto, as he has been unable to obtain the addresses of all. It is desirable, too, that where there are no such Associations, individuals should give expression to their opinions either through the medical journals or by communicating with the Chairman or Secretary of the Provincial Committee.

COMMUNICATION.

To the Secretary of the Medical Society.

DEAR SIR,—There appears to be a widespread desire among the members of the profession in this Province to establish a Provincial Medical Society.

It is hardly necessary to speak of the value and importance of such a Society from a scientific point of view, as that will immediately be recognized by all. But apart from that, it will be calculated to advance mutual interest, encourage unity and harmonious action, stimulate a free interchange of thought, develop increased desire for a knowledge of the professional literature of the present day, promote social and friendly feeling, and minimize that undesirable distrust and exclusiveness so commonly attributed to the profession, besides affording better opportunities than at present exist in having some place of meeting convenient to the majority.

It is a well-known fact that the State Medi-

cal Societies of the neighbouring Republic have contributed largely to the interest and success attending the meetings of the American Medical Association; in like manner it is reasonable to presume that a vigorous Provincial Society would greatly assist our Dominion Medical Association.

At a meeting of the profession of this city, on October 7th, the matter was relegated to a Committee, who will be pleased to have an expression of opinion from your Society in regard to this subject, as well as to receive any suggestion it may make.

In view of the importance of, and great advantages to be derived from, the proposed step, it would be desirable to bring the matter before your Society at once.

C. W. COVERNTON,
Chairman.
J. E. WHITE,
Secretary.

At the meeting of the Newcastle and Trent Medical Association, held at Peterborough, October 6th, 1880, it was moved by Dr. Day, seconded by Dr. McCrew, and carried unanimously, "That, in the opinion of this Medical Association, it is highly desirable that a Medical Association for the Province of Ontario be formed, and that this Association will give it a hearty support."

H. C. BURRITT, M.D.,
President.
J. T. V. HALLIDAY,
Secretary.

The following resolution, which was moved by Dr. Campbell, and seconded by Dr. Sloan, was carried unanimously: "That it is desirable that this Association lend its active support towards the formation of a Medical Association for the Province of Ontario."

One of the most ludicrous typographical errors lately reported was from the substitution of a "d" for the final "l" in chill. A gentleman on making a trip east left his wife in her usual good health, and was surprised in a few days at the receipt of a telegram announcing her serious illness. He telegraphed the family doctor for particulars, and received in reply the following: "Mrs. B. has had a child. If we can prevent her from having another to-day she will do well." The husband's mental condition was somewhat perturbed until he ascertained the exact state of affairs. —*Exchange.*

Book Notices.

Lacerations of the Neck of the Uterus. By A. REEVES JACKSON, A.M., M.D. Reprinted from the *American Practitioner*.

The Rise of American Dermatology; being the President's Address before the Third Annual Meeting of the American Dermatological Association, at New York, August, 1879. By LOUIS A. DUHRING, M. D.—A well-written address, well worthy of its celebrated author, and doing justice to the high esteem in which American Dermatologists are held and American Dermatology occupies at home and abroad.

Transactions of the State Medical Association of Missouri—23rd Session, held at Carthage, Mo., May 18, 19, and 20, 1880. These Transactions are neatly bound and clearly printed on good paper. They contain the minutes and proceedings of the meeting, the President's annual address, a number of interesting papers and the discussions thereon, and the reports of Committees on Medicine, Surgery, and Medical Education. The book is very creditable to the Association.

A New School Physiology. By RICHARD J. DUNGLISON, A.M., M.D., Editor of Dunglison's "Medical Dictionary," etc. Porter & Coates, Philadelphia.

This is a small book of about 300 pages, on Elementary Physiology. It is written in a plain, clear style, well printed in large type, and illustrated with over one hundred excellent engravings. The book is well suited for use in public schools, private classes, and in families. During the last few years people are becoming more alive to the importance of acquiring some knowledge of this subject. We rejoice in the fact, and gladly welcome this addition to the text-books on Physiology, which will be found useful to a large class of the public who have neither the time nor the inclination to study more comprehensive works.

Handbook of Physical Diagnosis. By DR. PAUL GUTTMAN, of Berlin. William Wood & Co., New York.

This is a valuable volume, and one of the

series printed by this publishing firm. These books are well got up, and wonderfully cheap for medical works. In the first part of it are well-executed colour plates of the urine, and throughout are clear woodcuts of the different instruments used in physical diagnosis. The chapters devoted to an examination of the organs of respiration and circulation indicate a thorough acquaintance with morbid and healthy sounds of the lungs and heart. The style is clear and epigrammatic—just such as a practitioner wants, who in his busy every-day work has not the time, and often not the inclination, to wade through the diffuse literature to be found on this subject. Of course, no books can teach to any one the normal and abnormal sounds of the chest. The ear and percussion must do this. The senses must be educated to this work, just as in childhood they teach us to rightly interpret the sounds of nature. The sounds in health are as necessary to be known as those in disease. We judge by comparison. The doctor's Shorter Catechism should be in every case as follows, viz.:—

- 1st. What is the matter?
- 2nd. What should be done?
- 3rd. How should it be done?
- 4th. When and in what order should it be done?

The most important is the first. If that is not clear in a practitioner's mind, it is evident he is only indulging in hap-hazards as to the rest.

A book on Diagnosis does much to assist the reader to correct methods of investigation, and gives the experiences of previous observers in this important field of research. The book before us is one of the best we have read on diagnosis, and shows us how clear-headed the author is when discussing this paramount branch of medical research.

The Art of Prolonging Life. By CHRISTOPHER WILLIAM HUFELAND. Edited by Erasmus Wilson, M.D. Lindsay & Blakiston, Philadelphia, 1880.

This little book, by Professor Hufeland, of the University of Jena, we are informed by the present editor, was translated into English in 1797, most probably by its author, but "has been less known than its merits de-

serve;" and, in consequence, Dr. Wilson undertook the present edition, "under the hope of being able to fill a vacant niche in popular literature." This is a very fair premonition, for the work is certainly quite as likely to interest the general reader as the members of the medical profession. It contains much information which may prove instructive and useful to those who desire a better knowledge of the grand secret of elongating life to its utmost attainable limits; and we presume this class is sufficiently numerous to warrant the expectation of a pretty general demand for the book. It is, however, a tolerably well-known fact, that the young and robust bestow but little thought on the subject of life economy. It is not until men have passed the meridian of life, and begin to feel those admonitions of physical declination which portend ulterior vital sunset, that they begin to think seriously of their prospect of protracted existence. The poet Young has most truly told us:

"All men think all men mortal but themselves;"

and just as the soldier at the close of a battle, surrounded by the mangled bodies of hundreds of his morning companions, clings more strongly to the hope of his own immunity, so would it seem to be with those who, in their journey of peaceful life, have seen their early associates one by one drop off, and "pass over to the majority."

Were it not that we must all be conscious of the destiny of the like infirmity awaiting ourselves, we might often be tempted to smile at the tenacity with which the aged hang on to their attenuated thread of life, and at the manifold devices by which they flatter themselves they may be enabled to spin it out to its last possible, or impossible, fibre:

"The tree of deepest root is found
Least willing still to quit the ground."

If such be the allotment of humanity, who can regard extreme old age as the prelude to a true *euthanasia*; and who would devote his time to the study of "*the art of prolonging life*" until it has become a wearying burden to himself and to all around him?

Though it is not to be denied that the world has stood much indebted to some benefactors

who attained to very ripe years, it is equally true that no small proportion of those who have left enduring monuments of their genius and industry have been taken out of life in comparatively early years. The following list of distinguished men, showing the age attained by each, is given by the editor, and will be read with interest by those who are curious in such matters :

Tasso.....	51	Galileo ..	78
Virgil	52	Swift	78
Shakspeare ..	52	Roger Bacon ..	78
Moliere.....	53	Corneille.....	78
Dante	56	Thucydides ..	80
Pope	56	Juvenal	80
Ovid	57	Young.....	80
Horace	57	Plato	81
Racine	59	Buffon.....	81
Demosthenes ..	59	Goethe	82
Lavater.....	60	West	82
Galvani.....	61	Franklin.....	84
Boccaccio ..	62	Metastasio ..	84
Fenelon	63	Herschell	84
Aristotle	63	Newton	85
Cuvier	64	Voltaire.....	85
Milton	66	Halley.....	86
Rousseau	66	Sophocles	90
Erasmus	69	Leuwenhoeck....	91
Cervantes.....	69	Hans Sloan.....	93
Dryden	70	Whiston.....	95
Petrarch	70	Michael Angelo...	96
Linneus	71	Titian	96
Locke	73	Herodias.....	100
Reaumur	75	Fontenelle	100

If the measure of human life should be estimated, not by the number of years attained, but by the labours which have filled the years, and have been handed down as mental treasures to posterity, who that is gifted with a just appreciation of the products of poetic genius will not say that the first nine names are those of the longest lived in the preceding illustrious roll? It is almost a pity that we find Milton to have lived fourteen years longer than Shakespeare; and had Goethe died thirty years younger than he did, it is questionable whether his "Faust" would not have seen the light in even a more attractive form than that in which, near the close of life, he gave to fame this conception of his youth. We might well excuse a less masterly definition of the arch-fiend Mephistopheles, had the poet been more expansive in his delineation of the innocent Margaret. If he had to live to four score before giving the finishing touches to his picture of the Devil, the world would have been no loser by his earlier demise, and posterity would have adored him had his Margaret

come down to us with that richness of colouring with which, beyond doubt, he had graced this simple child of nature, ere his ripened familiarity with human debasement enabled him to cope with the malignant devices of the "Father of Lies." But these sentimental aberrations are rather foreign to the purpose which should be had in view in drawing popular attention to the entertaining and instructive little book presented to us in so pleasing and simple a style as that in which it comes from the hands of its illustrious editor. The reader who will take it up with the desire and the expectation of being pleased with its varied contents, will have no reason to accuse himself of any waste of his time; and as it is divided into short chapters, which may be taken up in spare intervals without any danger of breaks of continuity, it will be found well suited to the requirements and the taste of those who desire to indulge in occasional brief mental regalements, which at once lighten the toils of every-day life and impart fresh invigoration to the mind.

INTERNATIONAL MEDICAL CONGRESS.—The seventh session of the International Medical Congress will be held in London, England, from August 3rd to August 9th, 1881. All communications respecting the Congress should be addressed to Wm. McCormac, Esq., Hon. Secretary-General, 13 Harley Street, London, W.

Births, Marriages, and Deaths.

BIRTH.

In Oshawa, on September 29th, the wife of Dr. W. Coburn, of a son.

MARRIED.

At Toronto, on September 28th, Frank S. Keele, M.B., of Gravenhurst, to Charlotte Grace, eldest daughter of B. W. Murray, Osgoode Hall, Toronto.

In Jefferson, Ohio, on September 30th, 1880, Dr. C. B. Healy, of Brantford, Ont., to Miss Emma Harris, of Jefferson.

On October 6th, at 112 Parliament Street, Toronto, J. M. Piper, M.D., of London, Ont., to Beckie, second daughter of Wm. Boddy, Esq., Toronto.

At Northwoodbank, in the village of Nixon, County of Norfolk, W. Tisdale, M.D., of Lynedoch, to Miss Addie L. Wood.

On September 28th, at the residence of the Hon. D. Morrison, St. Cloud, Minn., by the Rev. Thomas Riley, C. E. Stinson, M.D., to Annie, only daughter of E. R. Abell, Chief Engineer of the Hudson Bay Company.

DEATHS.

In Kingston, September 25th, Thomas B. Tracy, M.D., M.R.C.S.E., aged 38 years.

At No. 38 Gilmore Place, Edinburgh, Scotland, on 9th October, 1880, Euphemia, relict of the late Dr. Telfer, of this city, aged 77 years.

THE Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D.,
R. ZIMMERMAN, M.D., L.R.C.P., Lond., } Consulting Editors.

A. H. WRIGHT, B.A., M.B., M.R.C.S., Eng., } Editors.
I. H. CAMERON, M.B., }

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All literary communications and Exchanges should be addressed to Dr. CAMERON, 144 Duke Street.
All business communications and remittances should be addressed to Dr. WRIGHT, 312 Jarvis Street.

TORONTO, DECEMBER, 1880.

Original Communications.

INTERESTING CASE OF SPINAL DISEASE.

REPORTED BY DR. WATT.

The patient, Wm. Welsh, æt. thirty, consulted Dr. Aikins in June last for a supposed affection of the lungs. He is a well-formed stoutly-built man, but much reduced by sickness and confinement. Has been always a very healthy and hard-working man, and prided himself upon his ability to take heavy lifts. About two years ago, in raising a bag of flour to the scales, he felt a pain or "stitch" suddenly take him in the back, and was laid up then about a month. Recovering somewhat, he continued to attend to business, although complaining constantly of "wandering pains" in the spinal region and around towards the right side, with inability to lift as he used to do.

About six months ago, after exposure at night, he took a severe cold, with cough, and he has been confined to bed most of the time since then. Following the cold, a severe pain set in in the right side, which after two months settled in the spine, one of the vertebræ (the fifth or sixth dorsal) beginning to project backward; this was followed by the outward curvature of two more vertebræ higher up. About three months ago a plaster-of-paris jacket was put on, but it had to be removed in two weeks, because it increased his cough and seriously interfered with his breathing. The jacket appears to have removed the curvature in the spine, but at the time it was put on he spat up considerable blood, caused, he thinks, by the uncomfortable suspension of his body. Had not

before and has not since spat up any blood; but the spectrum is occasionally pink or rust-coloured, and sometimes very tenacious and stringy on standing. Previous to the jacket being put on no disease of the lungs had been diagnosed, but after it came off he was told that the left lung was affected; and by another physician, some time after, that the lower lobe of the right lung was also diseased.

For the last five or six weeks the patient has been spitting up small pieces of bone, which apparently come from the diseased vertebræ; they come up without causing any special or unusual coughing; the expectoration has not at these times been noticed to be particularly offensive, although at other times it has been. Slight constipation; appetite has all along been fair, but swallowing food or drink causes coughing from local irritation; does not vomit; has lost 35 lbs. in six months. P. 108; T. 101.2.

On coughing or laughing, the patient says he can feel the vertebræ gliding back and forward one upon the other; and with the hand on the back, the crepitation so caused can be felt.

On the 20th, a superficial abscess in the upper dorsal region, close to the spine, was diagnosed by Dr. Aikins and lanced, a quantity of very offensive pus being discharged. The abscess was washed out with carbolyzed water the same evening and on the two following days, the discharge during each night being very copious, but not so offensive as on Sunday.

On the 23rd Dr. A. probed from the original opening, and traced the abscess about five inches along the spine downward, when a second incision was made and a drainage tube carried

through. On injecting the tube with carbolized water coughing was excited, and the patient declared that he felt the taste of the acid in the mouth.

24th. The patient is much easier; pulse and temperature lower. The injection again caused coughing, and a decided taste of the acid in the mouth; and later he declared that some of the acid water came up through the mouth and nose.

25th. The patient left for home, taking a tonic mixture, his wife being directed to wash out the abscess daily. A generous diet, and residence in the open air to the fullest possible extent, prescribed.

On examination of the lungs, Dr. Aikins discovered no evidence of phthisis, and nothing more than the remains of a former pleurisy, with some crepitation over left lung.

Dr. Graham agrees with Dr. A. as to condition of the lungs.

FRACTURE OF THE SCAPULA.

BY H. T. MACHELL, M.B., L.R.C.S. EDIN.

I was called in October last to see a boy who was said to have fallen out of a hay-mow and injured his arm. The patient, ten years old, had been playing with other children on the hay, and had fallen out of a hole just over the manger, the whole weight of the body coming on the lower angle of the scapula, the right arm going to the inside of the manger, the body outside. There were two or three abrasions of the skin on the inner side of the arm, and about as many on the chest of the same side. In addition to these there was a good-sized swelling just over the lower part of the scapula. The movements of the arm were rather limited, on account of the pain it gave him. The bones of the arm and the shoulder joint were normal.

On getting my fingers under the scapula and pressing backwards, marked crepitation could be felt—in fact, the fractured piece could be moved very easily, and its dimensions made out without much trouble. The fractured piece, the lower angle, was bent inwards at an angle of about 45 degrees, was about $\frac{3}{4}$ of an inch in width at widest part, and between 2 and 2 $\frac{1}{2}$ inches in length.

TREATMENT.—The right hand was placed over the left clavicle, the elbow well forward and close to the chest, and fastened in that position by a wide bandage going around chest and arm. A good-sized pad was placed over the upper fragment. The arm was placed in a sling, which kept it well forward and well pressed up.

The bandage and sling were kept on for three weeks. At this time (13th November) there is quite firm union; but there is still some incurving of the fractured piece.

The boy has quite recovered the use of his arm.

AN UNIQUE DISLOCATION OF THE ULNA.

BY W. J. WILSON, M.D., STOUFFVILLE, ONTARIO.

R. W., farm labourer, aged 42, strong and healthy, fell from a load of wood on 22nd September, 1880. In falling he threw out his right arm, and received an injury to the elbow-joint.

When I saw him, about half an hour after the accident, I found the upper end of the ulna displaced outwards, and behind the radius. The arm was flexed at nearly a right angle, and immovable. The lower end of the humerus was very prominent, showing all its articular markings very plainly. The radius was in its place. Pain intense.

I reduced the dislocation under chloroform, by taking hold of the upper end of the ulna with my right hand, while the wrist and arm were fixed, and lifting it slightly backwards to free it from the radius, and then directly inwards to its position. It was done up in an angular pasteboard splint, and passive motion was resorted to about the fifth week. At present, November 11th, it is doing well, and can be used quite freely in handling light objects. It shows no tendency to displacement, and no signs of there having been any fracture.

Mr. J. E. H. Lesage, notary, of Montreal, has served upon the authorities of Laval University, at Quebec, a protest calling upon them, at the instance of the School of Medicine and Surgery of Montreal, to cease their branch in that city, and threatening legal prosecution if it is not withdrawn.

Selections: Medicine.

TREATMENT OF INFANTILE PARALYSIS.

Dally, in this exceedingly able and instructive paper (*Journal de Thérapeutique*, March 10th), prefaces his remarks by a definition of the disease and a description of the present views as to its morbid anatomy. This he does, since great misapprehension has existed by confounding several very different diseases, some curable, others not, under the title of infantile paralysis, and thereby he makes it quite clear to what ailment he refers. The essential paralysis of children is clinically characterized by a sudden onset without prodromata, generally feverishness and of short duration; paralysis rapidly supervenes, and in twelve or twenty-four hours is usually complete. After the first week movements reappear here and there, but often some limbs or some scattered muscles remain paralyzed and atrophied, such paralysis becoming the cause of very various deformities. Dr. Dally quotes from M. Buchheim's article on the spinal cord in the *Dictionnaire Encyclopédique des Sciences Médicales*, the description of the morbid anatomy of this affection. Referring to the various observations of Laborde, Cornil, Prevost, Vulpian, Lockhart, Clarke, Charcot, Geoffrey, Roger, Damaschino, Parrot, and Jeffrey, extending from 1861 to 1871, he proceeds to sum up the results as being sclerosis, or simply atrophy of the antero-lateral columns of the cord, and granular disintegration of the large cells in the anterior cornua, the latter being a constant lesion. The question as to whether the degeneration of the nerve-cells is secondary to the pressure caused by sclerosis of the spinal cord, or whether the atrophy of the nerve-elements is primary, he leaves unanswered; indicating that Charcot and Vulpian supported the latter view, as Roger and Damaschino incline towards the former. The sudden onset, the diminished faradaic contractility, and the rapid muscular atrophy, all point to a primary affection of the nerve-cells, which alone may be sometimes found affected. Speaking of the cause of the disease, Dr. Dally points out that no diathesis,

or hereditary predisposition, nor the usual accompaniments of growth, will account for it, but refers to a case that came within his own knowledge, and which he has previously placed on record, of three children in one family who were attacked, two in one day, and the other within twenty-four hours, that almost justified the suspicion of some poison being the cause. The cases were seen by Trousseau, Duchenne, and others, and no doubt as to the nature of the malady existed. Coming to the main purport of the paper, the writer, following Laborde and Duchenne, divides the treatment into three periods: 1. That for the acute phenomena of the onset; 2. For the paralysis and atrophy; 3. For the subsequent deformities. In respect to the first stage, Dr. Dally confesses to having had no experience of it; but assuming that a stage of vascular congestion precedes the destructive state, he agrees with the treatment recommended by Duchenne, Laborde, Simon, and Bouchut, and which may be summed up as means for withdrawing the blood from the vertebral region by the ventral decubitus, manipulation, sinapisms, etc., to the calf, and intestinal derivatives, especially calomel. The diet should be milk. Following the recommendation of Bouchut to employ the constant current, as Duchenne recommends the faradaic, he would only wait for the cessation of the fever to apply them to the affected muscles. The second period is essentially that of repair; spontaneously in the greater number of cases the disease limits itself when it is not completely cured. The problem is to prevent the sclerosis of the antero-lateral columns, which is secondary to the affection of the nerve-cells. Duchenne states that the application of local faradization at the commencement of the paralysis would cut short the duration of the paralysis; diminish, if not prevent, the atrophy of the muscles; and, perhaps, prevent their fatty degeneration. Keeping this dictum in view, Dr. Dally followed out the treatment in a dozen cases, over periods of three weeks to three years, with almost always the same results, viz., the re-establishing to a degree of the locomotive power, the prevention of deformities, and the arrest of the progressive atrophy. In one case, a perfect cure followed a complete paralysis,

though the atrophy was less marked than usual. A further advantage is the prevention of atrophy of the bones, whereby, should the muscles eventually recover, the deformity of the limb is prevented. It is in reference to the treatment of the subsequent deformities that Dr. Dally makes some valuable remarks. He is rightly very severe upon the assertion too often made, that "the case will improve with age," a remark that, "however consoling it may be for the moment, is terribly false." "No improvement," he goes on to say, "follows age, nor the appearance of the menses, nor the changes of the moon, unless a happy chance or science interfere." He regards, also, as a most serious error, the indiscriminate use of gymnastics and exercise, as is often advised, since the deformity is due to the disturbance of the normal antagonism of the muscles of the limb one against the other by the paralysis of certain of them, leaving the others to exert their full force unneutralized. By exercise and gymnastics, this want of equilibrium is intensified and the deformity increased; since it is the healthy muscles alone that can participate in the exercise, the more they are developed by use the more do they deform the limb. The first rule, therefore, when inequalities in the limbs exist, is to supply the deficiencies by mechanical means; and the second is to limit the exercise and galvanism to the muscle or group of muscles which are paralyzed. The application of this rule will obviously vary with the part affected. Exercise is only applicable to those muscles which retain some contractility, and may be applied by directing the patient to perform the movement as far as he is able, resistance to such movement being made by the practitioner; or the latter may himself perform the movement of the limb, the patient being told to oppose such action as much as he can. The writer insists upon the persistent employment of the remedies, and warns against the expectation of rapid improvement, and compares the gradual advance made to the growth of the intellect by education. Galvanism the author regards as of most value for its direct and indirect trophic action, not so much on the separate organs as on the whole region. How far alone it is of value he cannot say, since he has always em-

ployed it in conjunction with other remedies.—*London Medical Record*, July 15, 1880, and *Medical News and Abstract*.

REMEDIES FOR HEADACHES.

The following receipts and suggestions for the treatment of different forms of headache are collected from a variety of trustworthy sources:—

Two grains citrate of caffeine, in capsule, taken every half-hour, is a very effectual remedy in nervous and sick headaches. One or two doses are often sufficient to give complete relief. The only objection to its use is sleeplessness, which sometimes results if it is taken in the evening. It is preferable to guarana as being hardly ever rejected by the stomach.

The following, according to Dr. W. W. Carpenter, is very effectual in most forms of headache:—

Muriate of ammonia, 3 drachms; acetate of morphia, 1 grain; citrate of caffeine, 30 grains; aromatic spirits of ammonia, 1 drachm; elixir of guarana, 4 ounces; rose water, 4 ounces. Mix. Dessertspoonful every ten or twelve minutes.

In nervous headache, Dr. W. A. Hammond states the value of various drugs as follows:—

Oxide of zinc is of great value. Ordinary dose, 2 grains, three times a day after meals; maximum dose, 5 grains. It is best given in form of pills.

Nux vomica is preferable to strychnia. The dose is $\frac{1}{4}$ grain, after meals. If the patient be chlorotic, it is well to combine a grain of reduced iron and half a grain sulphate of quinine.

Bismuth, in the form of subcarbonate, will often take the place of oxide of zinc. Dose, 2 grains, after each meal. Bismuth probably aids digestion more than any mineral tonic, and is of use when there is gastric disturbance.

The bromides are serviceable when the nervous system has been irritated; when it is exhausted they do harm.

Phosphorus is very useful in most forms of nervous headache. The best results are obtained from dilute phosphoric acid, in doses of 30 drops, largely diluted, three times a day, after

eating, or phosphide of zinc, 1-10 grain, in pill, three times a day.

Arsenic, as a nerve tonic, stands next in value to zinc. Dose, 5 drops of Fowler's solution three times a day, after meals.

Galvanism is sometimes valuable, but by no means a specific. The *constant current* should always be used, being careful to avoid too great intensity, lest amaurosis be produced.

Dr. T. Lauder Brunton, editor of the *London Practitioner*, says: The administration of a brisk purgative, or small doses of Epsom salts, three times a day, is a most effectual remedy for frontal headache when associated with constipation; but if the bowels be regular, the morbid processes on which it depends seem to be checked, and the headache, removed even more effectually, by nitro-muriatic acid, diluted, 10 drops in a wine-glass of water, or bicarb. soda, 10 grains, in water, before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the soda appears to be the most effectual. At the same time that the headache is removed, the feeling of sleepiness and weariness, which frequently leads the patients to complain that they rise up more tired than they lie down, generally disappears.

A writer in the *London Lancet* remarks: At the Middlesex Hospital, female patients who have suffered many years from sick headache, evidently of a hereditary character, have been greatly benefited, if not cured, by the administration of 10 minim doses of tincture of Indian hemp, three times daily, between the attacks. This is well worthy of trial in those cases of ever-living, never-dying martyrdom-like suffering.

In headache due to the determination of blood to the head and in fever, the following simple treatment is to be commended:—

Put a handful of salt into a quart of water, add an ounce of spirits of camphor. Cork the bottle tightly, to prevent the escape of the spirit. Soak a piece of soft cloth with the mixture and apply it to the head; wet the rag fresh as soon as it gets heated.

Soaking the feet in very warm water, in which a spoonful of mustard has been stirred, is also beneficial in drawing the blood from the head.

Two teaspoonsful of powdered charcoal well stirred in half a glass of water and drunk at once, is a valuable remedy in sick headache from sour stomach, flatulence, etc.

Tincture of nux vomica is recommended by Ringer as possessed of real curative powers, when given in drop doses, repeated every 5 or 10 minutes, for 8 or 10 doses, and then continued at longer intervals, for sick headache, accompanied with acute gastric catarrh, whether due to error in diet, constipation, or no apparent cause.—*Boston Journal of Chemistry and Canada Medical and Surgical Journal*.

SALICYLATE OF SODA IN RHEUMATIC FEVER.

BY E. HEADLAM GREENHOW, M.D., F.R.S.

The paper concluded as follows:—"Fully admitting, therefore, the great immediate relief that appears to follow the use of those agents in the treatment of rheumatic fever, there still remains for consideration the further question whether, upon the whole, the treatment is successful. The answer to this question must depend upon whether the complications which are apt to arise in rheumatic fever are less frequent under this treatment; whether the condition of the patient after recovery is better or worse than under other modes of treatment; and lastly, whether the length of time during which the patient is disabled is shorter or longer under this than under other modes of treatment. To all these questions my experience leads me to reply in the negative. We might have, perhaps, expected that hyperpyrexia at least would have been prevented by the use of such a powerful antipyretic agent, but the first two cases I have recorded negative this expectation, for hyperpyrexia was developed in both of these after the proper physiological influence of the salicylate of soda had become manifest. Pericarditis was present in many cases before the treatment was commenced; but, in several instances, it supervened afterwards. In three cases pneumonia, and in four others pleurisy supervened, when the physiological effects of the medicine had become manifest. On the other hand, several cases that were admitted

with either pleuro-pneumonia, broncho-pneumonia, or bronchitis ran very much the course we are accustomed to witness in similar cases under other treatment. Patients treated with salicylate of soda appeared to me to become unusually anæmic, and to regain health and strength very slowly. They are long in becoming fit to resume their occupations, and their recovery has appeared to me more tedious than has been the case with patients treated on other methods. Excluding the two cases of hyperpyrexia, the two fatal cases and nine very mild cases, which were on the average less than twenty days in the hospital, and, perhaps, recovered neither more quickly nor more slowly than such cases commonly do, I find that the remaining thirty-seven cases were on an average fifty-seven days each in the hospital. This period, however, by no means represents the duration of their disabling illness, for all had been at least a few days ill previous to admission, and probably none was discharged in a condition to resume work, many having been sent to convalescent hospitals, and others to their friends in the country to recruit. If now we examine into the duration in hospital of the cases treated with salicin, a very similar result is shown. Two cases which were admitted in an advanced stage of their illness being excluded, the average residence in hospital of each of the remaining eight cases was fifty-five days. With regard, therefore, to the treatment of rheumatic fever with salicin and salicylate of soda, we must, I think, come to the conclusion that most physicians did with regard to the treatment with blisters—viz., that the pain and distress of the patients are undoubtedly for a time greatly assuaged, but that the duration of the illness is not shortened. Of the two plans, I am of opinion that blisters applied in the vicinity of all the painful joints are by far the most efficacious and speedy in the relief they afford, and have the advantage of not producing so much subsequent debility. Another question now presents itself for our consideration—namely, whether it is not possible that some injurious consequence may result from the powerful action of the medicine upon the heart; and I am bound to express my fears that the marked weakening of the first sound of the heart present in so many

cases indicates the exertion of an influence upon the muscular structure of that organ, which may not always pass entirely away when the treatment is suspended, and more particularly when either inflammation of the endocardium or pericardium or of the muscular structure itself exists during the treatment.”—*London Lancet*.

SUGGESTED FORM OF MEDICAL CERTIFICATE.

BY T. N. BRUSHFIELD, M.D.,

Medical Superintendent, Brookwood Asylum, Surrey.

1. Facts indicating insanity observed by myself on the day of examination :—

Appearance, especially facial aspect, attitude, peculiarities of dress.

Delusions. (If any, describe them.)

Coherency or incoherency.

Condition of the memory.

Any change in the higher emotions.

Condition of the habits and propensities, especially as to change.

General demeanour : restlessness, excitement, exaltation, or depression.

Other abnormalities.

2. Facts indicating insanity observed by myself on days other than that of the certified day of examination.

3. Other facts (if any) indicating insanity communicated to me by others.

4. Statement of other particulars not contained in the foregoing :—

Probable duration of insanity.

Supposed cause—exciting, predisposing.

Is the patient temperate or intemperate?

Any relative known to have had insanity, epilepsy, paralysis, any nervous diseases, chorea. Give details, and state relationship.

Any defect at birth or in early infancy.

Any severe infantile diseases, convulsions during teething, tapeworm, etc.

Whether subject to epilepsy ; state frequency and character of attacks.

Whether dangerous to others ; state how, and whether exhibited towards a particular individual.

Whether dangerous to self—from non-suicidal motives, or from suicidal motives. Describe any attempt.

If of mischievous, destructive, uncleanly, or objectionable habits of any kind.

Condition as to sleep.

State of the bowels.

If known to have had any disease of the brain or spinal cord, sunstroke, or injury to head.

Any existing or recent bodily illness. Give details.

Present condition of thoracic and abdominal organs.

Any recent injuries, or marks of any. State how received, and give description.

If a female, report the condition of the uterine functions. Any special diseases or disorders connected with the puerperal condition. The number of children, and age of the youngest.

Fitness for removal to asylum (to be certified on the day of removal).—*London Lancet*.

LOW BODY-TEMPERATURE. — W. Kosürew (*Cbl. f. Chir.*, 1880, p. 494) gives the case of a Cossack who fell from a height, wounding the parietal tissues of the head. He was unconscious for three days, and survived only five days. During this time his pulse was 44 in the minute, and his temperature ranged in the morning from 27.2° to 28.5° C. (80.9° to 83° F.), and in the evening from 26.5° to 29° C. (79.7° to 84.2° F.). On post-mortem examination no fracture of the skull was found, but the vessels of the brain were found much congested, and the substance of the organ filled with small points of hæmorrhage.

SYMMETRICAL NEURALGIA IN DIABETES.—Dr. Worms, of Paris, has called attention to the occurrence of symmetrical neuralgias in an advanced period of diabetes. He has recorded two examples—one affecting the sciatic nerve, and one the inferior dental—and believes that the symmetry of the affection is a characteristic of this form, as also is its peculiar severity. It does not yield to the ordinary treatment of neuralgia—quinine, morphia, bromide—and the pain varies in intensity with the amount of glycosuria.

M. Woillez made an interesting communication to the last meeting of the Paris Académie de Médecine, on the utility of cold baths in the treatment of cerebral rheumatism. He said that, thanks to refrigeration—whether obtained by the wet pack, wet applications, or M. Dumontpalier's apparatus—cerebral rheumatism, so frequently a mortal disease, may now nearly always be cured.—*British Medical Journal*.

Surgery.

ON THE RELATIVE MERITS OF DIFFERENT METHODS OF WOUND-TREATMENT.

BY SAMPSON GAMGEE, F.R.S. -ED.,

Surgeon to the Queen's Hospital, Birmingham; late President of the Midland Medical Society, and of the Birmingham and Midland Counties Branch of the British Medical Association.

To surgeons scarcely past middle age, it is a subject of astonishment that a department of our art, which was supposed to have been thoroughly surveyed and understood in their student days, should of recent years have fallen into almost inextricable confusion. The dictum *simplex sigillum veri* seems to have lost its charm, if not its truth; and the old dresser, who once fondly believed he could tend a wound to healing with dry lint or simple cerate, red wash, or a pledget of cotton-wool, has been bidden to learn many novelties in a hurry; with what result time will prove. Many of the innovations are already in process of being unlearned at leisure; but, so much more attractive is partisan advocacy than judicial impartiality, that the contest still rages, and the question awaits solution, What are the relative merits of the different methods of wound-treatment?

At the onset, and throughout the discussion, one fundamental truth must be held steadily in view: the majority of wounds have an almost irresistible natural tendency to heal. Amongst the glorious results achieved by contemporary surgeons, we have none to surpass, very few to equal, the success of Alanson of Liverpool, with thirty-five amputations and no death; of Martineau of Norwich, eighty-four lithotomies, with only two deaths; and last, but greatest, Syme of Edinburgh, with only one fatal result in thirty-five ligatures of the femoral artery for popliteal aneurism.

If a comparison be instituted between the statistical results of the surgical practice under the lamented Callender and Mr. Lister; in the Edinburgh Infirmary under Spence; at Glasgow under Cameron and M'Ewen; and at Kilmarnock under Borland and M'Vail, the very small difference in the percentage of deaths is a prominent and incontrovertible fact. As those all but uniform results have been attained

under very various methods of wound-treatment, the thought suggests itself, that local appliances have less influence on the process of wound-healing than has the manner in which they are employed, the judgment of the surgeon, or his manipulative dexterity and precision.

Another proposition of which it is essential to have a clear conception is, that means apparently widely different exercise similar physiological influences, and, in the same manner and proportion, affect surgical results; to wit, cold water irrigation, and dry pressure. Let us assume two compound fractures, resembling each other in situation and extent of violence, reduced and put at rest. Over the one trickles a constant stream of cold water, while the surface of the other is covered with elastic pads, and uniformly compressed. Cold and pressure alike favour capillary contraction, retard the circulation, lull nervous susceptibility and muscular action, and, *pro tanto*, are opposed to congestion and inflammation, and favourable to healthy nutrition and reparative consolidation. Not only are cold and pressure not antagonistic, but complementary, as long since pointed out by Thomas Baynton, in the classical pamphlet which I hold in my hand. To him, as you all know, we are indebted for the introduction of pressure in the treatment of ulcers of the leg; but it may be questioned if many are equally acquainted with the lucidity and fertility of demonstration with which the old Bristol surgeon inculcated his teaching. He was no mere local dresser, but thoroughly understood the importance of attention to constitutional causes. He valued pressure as it deserves; but that did not prevent him from understanding and utilizing other agencies, and especially that combination of resources which is eminently conducive to therapeutic success. In cases of exceptional severity, he advocated a combination which will be found applicable to, and a source of great good in, a variety of surgical conditions—pressure and frequent applications of cold water.

Reverting to the all but uniform statistical results, already quoted, of successful wound-treatment under a variety of methods, one thing is quite clear. The atmosphere, with its pervading particles, was practically the same in all; but

it had little influence, if we are to judge from the result. Spray or no spray, the wounds healed. If you go back to 1867, when Professor Lister followed, though unconsciously, Déclat and Lemaire in the treatment of wounds by carbolic acid, for the destruction of Pasteur's germs, you cannot fail to be impressed with the heroic boldness of the practice, and its alleged beneficial results. In compound fractures, nothing would do but rubbing strong carbolic acid into their inmost recesses. A little more than a century ago, Wilmer taught that "to dress the wound of compound fractures, whether it be small or large, no application seems in general so proper as dry lint." Generations of surgeons have endorsed the dictum, but none the less the carbolic cauterization found many imitators. Nature was happily equal to saving many limbs in spite of them; and gradually it has come to be understood that carbolic acid is a very powerful irritant, and that its safe use in wound-treatment is only compatible with very large dilution. The exigencies of the germ-theory were at first held to necessitate the use of the concentrated acid; but, while the ratio of successes has grown with its dilution, something else has grown—awe of traumatism and unrest; reverence for cleanliness, gentleness, and absolute repose. None the less the out-and-out germ-theorists laud the health-giving power of their favourite germicides.

With the most sincere deference, I cannot but think that the intrusion of the germ-theory into this discussion has been a very unfortunate one. From a strictly scientific point of view I cannot but regard the expression "antiseptic surgery," professedly based on the germ-theory, as scarcely more defensible than "homœopathic medicine," which claims the doctrine of similars for its foundation. Assuming the truth of the former and the utter falsity of the latter, the terms remain objectionable. Surgery and medicine are sciences of observation in which pathological states should be noted, their causes enquired into, and their remedies experimentally tested by a strictly inductive process. If the practice be once recognized of prefixing to them designations, according to *à priori* theoretical generalizations, which extended expe-

ience may prove to be fallacious, the nomenclature of the sciences will vary with succeeding ages and opposing schools.

In questioning the wisdom of pretending to base a new system of surgery on the germ-theory, let it not be supposed that I confound with it the value of antiseptics, which the omnipresent germs are said to require for their extermination. The error, as I have said from the first, and as those who differed from me seem to be gradually becoming aware, has been twofold: first, to raise accessories to the position of essentials; secondly, to predicate from experiments on dead matter the behaviour of living tissues. Life and putrefaction are not correlative, but antagonistic; and in proportion as the surgeon utilises and economises the attributes of life, he will find himself independent of those changes which are inherent to decaying organic matter, whether it be in bagging wounds or boggy lands.

As detergents of foul wounds, and stimulants to the healing action of weak ones, antiseptics are admittedly of great value. Lesne tells us, in his posthumous edition of the works of Jean Louis Petit, that the great surgeon knew that tepid water and poultices were of no use in arresting sloughing and caries; against them he employed the most powerful antiseptics. Belloste, in his *Chirurgien d'Hôpital*, one of the brightest gems of our seventeenth century literature, employed antiseptics largely. He had also a clear appreciation of the value of immobility, and of dry and infrequent dressing, on which Magati of Bologna had written so learnedly a century before, and which, later on, Pibrac and Louis chose as the themes of classical disquisitions in the French Academy of Surgery.

It would be tedious to quote instances of the old standing and wide repute in which turpentine and resinous gums, alcohol, bark, and acids have been held as aids to wound-treatment, for their antiputrescent properties. In appropriate conditions, their value is indisputable—always remembering that no local treatment can dispense with attention to constitutional states.

To quote from John Scott, another of the past masters of surgery, equally distinguished

as a philosophic writer and a sound practitioner: "The influence of disorders of the health and the digestive organs in keeping up local diseases has of late years been fully explained; but little notice has been taken of the reverse truth—the influence of local disease in keeping up disorder of the constitution and the digestive organs; yet the latter is as true and important as the former."

The statement is almost a truism; but I make no apology for quoting it. There is some reason to apprehend that the great attention lately paid to topical appliances has been at the expense of adequate consideration for constitutional states; and that those who have made of the subject of wound-treatment a matter of mere dressing, have lost sight of some of the higher functions of surgery, in its scientific bearings and aspirations. Far from me to attempt to disparage the indirect advantages which have resulted from the discussion of the germ-theory and the advocacy of antiseptics, exaggerated and exclusive though they have often been. I well remember the day when one of the most kindly-natured men I have ever known, and probably one of the most brilliant operators who ever took a knife in hand, performed one after the other such operations as a lithotomy, a ligature of the femoral, an excision of the lower jaw, and an amputation of the thigh. Well can I see him dipping his knife into the fat of the ischio-rectal fossa, with as much freedom and as little concern as a butter-taster would dive into a tub of Dutch butter. The forceps followed into the large opening, and brought out a stone as easily as a boy takes a marble out of his pocket. Some rather free bleeding was little heeded; and the patient was carried to bed, to make way for a young woman whose jaw was to be excised. To save time, she was already under chloroform when brought into the theatre; and it was a matter of very few minutes to turn up the cheek and divide the symphysis, lever out the condyloid process, and send the patient back to bed with a fold of wet lint in the vast wound, and the blandly expressed assurance that the oozing of blood would soon cease. Such surgery, brilliant and nearly as fatal as the charge of Balaklava, might be magnificent as a feat of physical dex-

terity; but withal it was not surgery. Less blood would have been spilt, more lives saved, by a far less dexterous and showy operator, who had thought a little more of the evils of traumatism, and of the advantages of careful dressing based on sound physiological principles. To amputate a fleshy thigh, ligature two or three vessels, flood the flaps with iced water, and send the patient to bed with a fold of wet lint in the wound, to dress it after a few hours, when glazed, is a proceeding which once was called scientific, but which I shall abstain from characterizing as it deserves, through respect and sympathy for the mistaken men who practised it—myself, five-and-twenty years ago, amongst the number.

In heading the practical protest against such a state of things, and in exemplifying, by the most magnificent patience, the value of attention to details, which had come to be treated almost habitually with neglect, Professor Lister established claims to admiration and gratitude which will survive long after the eccentricities of the germ-theory shall have been forgotten.

It is to the lightness and precision of all manipulations, to perfect rest and drainage, equable pressure and unfrequent dressing, with antiseptics as valuable accessories in due form and proportion to suit particular cases, that the operator must trust for his results. The less he delegates to others the better: every detail is of the highest import; the mental repose, no less than the physical rest of body and limb of his patient, must be studied; and he will have the satisfaction of finding that all-round major surgery—including lithotomy and amputations, compound fractures and joint-excisions—can be practised with a mortality of one and a half per cent. Rest, to be really of use, must not be merely a negation of locomotion, but a state of absolute repose. Joints above and below the seat of injury must be fixed, an end very imperfectly attained by iron and wooden splints, most perfectly compassed by the use of materials which accurately mould themselves to the inequalities of the body, and then solidify. On the whole, I find no moulds so easy of preparation, so comfortable, and so effective as those made with thin rough millboard moistened and

gummed. One or more thicknesses can be used, according to the strength required, and, with intervening layers of gummed bandage, perfect papier-maché moulds can be constructed. Sand-bag packing and suspension apparatus are invaluable aids in carrying out the cardinal principle of rest; conducive to it, also, is unfrequent dressing. Many wounds will doubtless heal, however frequently they are disturbed; but, as a general proposition, the less frequently wound-dressings are displaced the better. To change the dressings after an amputation at the hip-joint, because some bloody serum has permeated them, and may become the channel of germ-infection, is, I submit, with the most kindly candour, to sacrifice the chances of a life to a theory.

It was, if I mistake not, Mr. Erichsen who said, at the late Cambridge meeting, that drainage was the most important and valuable innovation in wound treatment. I quite agree with my old master, the distinguished President of the Royal College of Surgeons. But it is not only to drainage-tubes that you must trust for carrying out the principle.

These pads of absorbent gauze and cotton, which Messrs. Southall Brothers and Barclay prepare, act admirably in taking up discharges and keeping parts clean and sweet. They are proportionately antiputrescent; and, as they are treated with carbolic, benzoic, and tannic acid, according to requirement, they act as agreeable deodorisers. All in all, they are the most perfect and comfortable surgical dressings I have ever manipulated. Their absorbent power is so great, and they dry the neighbourhood so rapidly and effectually, that some softening application may sometimes be necessary. I find nothing better than a little glycerine sprinkled on the under surface of the pad, or applied on a piece of lint. The affinity of glycerine for water and other liquids is so great, that it favours endosmose, and really increases the absorbent power of the pad, while averting the inconvenience of its sticking. Those of you who are acquainted with the writings of the versatile Demarquay, need not be told how he extolled glycerine for its antiputrescent and mildly stimulating powers. The more I have used it the more I have been pleased with it,

though it has not altogether displaced in my practice, according to the requirements of particular cases, such applications as styptic colloid and tincture of benzoin, the terebinthines, and solutions of iron, zinc, and copper.

A few words for position and pressure, to which, with rest, you must trust for the regulation of the dynamics of the circulation. I have said so often that rest, position, and pressure are the trinity of the healing surgical graces, that I am almost tired of repeating it. But some truths are so essential and obvious, that iteration is indispensable to secure their constant presence to the mind as leading dogmas of a working faith. The value of position is pretty generally understood; but if I were asked what therapeutic agency is inadequately appreciated by the majority of surgeons, many of them the most enlightened, I should say *pressure*.

The brevity of these observations must not be taken as a measure of the estimation in which I hold the subject matter of this very imperfect address. None is more worthy of the zealous attention of the student and the deep thought of the practitioner.

It has been less my aim to instruct the youngest of my hearers than to elicit, in debate, the experience of the oldest and wisest. I felt that this could better be done by sketchy treatment and salient contrast, than by methodical arrangement and exhaustive prolixity. I am free to confess that I have had another inducement to conciseness; for by it I have hoped to obtain admission for the observations which I have ventured to submit to you in the crowded pages of our widely circulated and very ably conducted Journal. Its columns have teemed for some years past with communications on wound-treatment—many of them sparkling with originality, all of deep interest; yet not a few, I say it with the most respectful consideration for their authors, erring by their exclusiveness, and by their want of comprehensive grasp of a subject which is essentially broad and many-sided.

It is in this, as in many other departments of knowledge, abstract and applied—the very concentration, which is of the essence of success to complete mastery of principles and de-

tail, is apt to beget narrowness and prejudice. Inquirers, with steady gaze on the objects immediately before and around them, are very liable to mistake for the horizon the boundary lines of their restricted vision, and to be attracted into newly-discovered byways, as if they could dispense with the old highway of truth to which they are but auxiliary.

All that is needed to dispel the illusion and sober the judgment is wide observation of nature from an independent standpoint, and a patient study of the masters of our science and art, irrespective of age and country. Such a study will minimize obstacles to reconciliation of differences, which are often more apparent than real. It will strengthen a reasonable faith in the powers of living nature, which will be found all-sufficient to promote the healing of wounds in the hands of surgeons who, guided by the demonstrable truths of experimental physiology and pathology, combine unprejudiced, clear, and painstaking observation with light-handed, clean, and painless manipulation. —*British Medical Journal*.

ANTISEPTIC INFLATION.

Mr. J. Holden Webb, of Melbourne, has recently published a paper in the *Australian Medical Journal* describing and advocating a new plan of rendering old sinuses and putrid abscess cavities aseptic. At first such cases were dealt with by injections of carbolic acid lotion; more recently Volkmann has introduced his sharp spoons, by means of which the unhealthy granulation tissue forming the walls of such passages and cavities can be removed, and inasmuch as there is good ground for believing that septic organisms not only exist in the putrid discharge but also infest the secreting walls of such cavities, this must be considered, and, indeed, has proved, a valuable adjunct to the simpler plan of injections only. In dealing with very large cavities, irregular and sacculated, such as are particularly met with in connection with disease of the spine, it is obviously very difficult, if not impossible, to inject fluid so thoroughly that it shall penetrate into every corner and exert its germicide property on every part, and in these cases also the use of Volk-

mann's sharp spoons is necessarily limited within very narrow bounds. It was for such cases that Mr. Webb tried inflation with carbolized air, as being more likely to give success. His apparatus is simple. Into a Florence flask he puts some crystallized phenol, and through the cork, which fits tightly, he passes two glass tubes, one passing to the bottom of the flask, and the other only just beyond the cork. These tubes are bent at right angles just above the cork. To the long tube a Richardson's bellows is fixed. When in use the flask is raised on a stand, the acid melted and heated by a spirit lamp, and air forced by the bellows through the acid in the flask, and by the shorter tube into the cavity to be inflated. All the force of the hand is used in the inflation, the cavities being tightly distended; and although it "often makes the patient drowsy for some hours afterwards, and sometimes renders the urine smoky," Mr. Webb has not met with any ill effects. Thymol inflation has been followed by disagreeable sickness. In his paper, cases of old sinuses, spinal and other abscesses submitted to this treatment are detailed, and it is stated that the results in correcting septicity of discharge, and therefore in checking suppuration, fever, and hectic, and in hastening recovery, have been very satisfactory.—*London Lancet*.

NOTE ON ETHYLATE OF SODIUM.

BY H. S. PURDON, M.D.,

Physician to Belfast General Hospital, and to the Hospital for Skin Diseases, Belfast, Ireland.

Since Dr. B. Richardson's article in the *Pharmaceutical Journal* some eighteen months ago, on Ethylate of Sodium, I have given this agent an extensive trial at the Hospital for Skin Diseases. The solution is made of equal parts of the ethylate and either water or alcohol. The more I use it, the more I am impressed with the value and importance of Dr. Richardson's discovery. Last summer (1879), in the *Lancet*, I recorded cases of nævi and lupus cured by this means; and without entering into details, I may say that in lupus vulgaris and erythematosis, scrofuloderma, small patches of cutaneous cancer-warts, mucous tubercles, nævus, and all non-malignant new formations in the skin, the ethylate of sodium is not only useful but cura-

tive, and that, as a rule, without destroying the skin or producing deformity. Dr. Richardson says that by experiment he found the ethylate of sodium, when brought in contact with moist living tissues, to be decomposed, caustic alkali being produced, and ethylic alcohol being reproduced by the extraction and decomposition of the water of the tissues. Therefore, when the solution of ethylate of soda is applied to a vascular living tissue, such as nævus, four results should be obtained: 1, removal or absorption of water from the tissues with the ethylate; 2, the destructive action of a caustic from the caustic soda that is formed; 3, coagulation from the alcohol that is reproduced to prevention of decomposition of the dead organic substance that is formed. In addition to the diseases already mentioned, the ethylate should be useful for the bite of a dog or snake; and as a remedial agent admits of a wide range of action.—*Archives of Dermatology*.

RESULTS OF TREATMENT OF AORTIC ANEURISM BY GALVANO PUNCTURE.—(Read before the meeting of "The French Association for the Advancement of Science," session held at Rheims, 1880.) M. L. H. Petit has collected 114 cases of this kind; in 111 cases the continuous current was employed, in three cases interrupted currents (Z. de Kauer, Piedagnel). These 114 cases showed 69 ameliorations; 38 patients died without notable improvement; in three cases no result was obtained; in four the results were doubtful; 39 patients survived less than a year, although very much improved, and 10 from one to two years; the rest survived from two to five years. Of the patients who were observed up to the time of death, rupture of the aneurismal sac was noted about 40 times. It is by much the most frequent cause of death in these cases. After the disappearance of the immediate symptoms, or even immediately after the *séance*, the improvement was manifested in a number of cases by diminution of pain, and of the pulsations, and by augmentation of the consistence of the tumour, followed by its progressive diminution. This retrograde course of the disease occurred in 24 cases after a single *séance*, and lasted from 2 to

17 months; in others, three, four and five *séances* were required, and in still others as many as 11 and even 12; but this was due to the fact that the improvement was of short duration after each of these, and the treatment was begun anew after the reappearance of symptoms. The subjects of this category all succumbed a short time after the last *séance*.

Intrathoracic aneurisms gave 30 successes and seven failures; those which had reached the exterior gave 36 successes and 31 failures; it will hence be seen that although the proportion of successes is greater when the aneurism is still contained within the thorax, we may, nevertheless, hope for good results in about half of the cases of thoracic aneurism with external tumour.

The 114 cases represent 292 *séances*, which may be thus divided, as far as the immediate result is concerned:—Amelioration in 186, aggravation in 61, *statu quo* in 14, not indicated exactly 31. The amelioration affected chiefly the symptom pain; there were also observed cessation of attacks of angina pectoris, return of sleep and of appetite, &c. Among the accidents which characterized the aggravations were noticed:—Augmentation of size of tumour, inflammation of the track of the needles, circumscribed sphacelus, and pretty persistent hæmorrhages, &c. These accidents were especially observed when the needles were made to communicate with the negative pole; on the other hand, they were very rare when the positive pole only was employed. M. Petit concludes, therefore, with Anderson, Dujardin-Beaumetz, Teissier, &c., that *positive* galvano-puncture is the best proceeding hitherto employed.

BORIC ACID IN ECZEMA AND INTERTRIGO.—

A good pomade to employ in this affection is that used by Dr. Delaporte:—

R. Boric Acid	grammes 5.
Neutral Glycerine	" 5.
Dissolve, and add—	
Vaseline	" 20.
Balsam of Peru	" 1.

Apply every evening at bed-time for many days.—*Le Practicien*.

NOTE ON A SIGN BUT SLIGHTLY KNOWN, YET PATHOGNOMONIC OF FRACTURE OF THE NECK OF THE FEMUR.

In the principal hospital of Milan it is the traditional practice to explore attentively the little space which is found between the great trochanter and the ilium, whenever attention is drawn to the possibility of a fracture of the neck of the femur by some rational sign.

When the lower limbs have been brought parallel to the median line, in place of the considerable resistance which the tensor muscles of the fascia lata and middle gluteus present on the healthy side, we find on the fractured side a very appreciable depression, due to the approach of the points of insertion of the above-named muscles.

We do not know the surgeon who first remarked this symptom. Professor Bessi, of Modena, in his Surgical Clinic, in indicating this phenomenon to his pupils, said that he had it from Dr. Gherini, former surgeon of the principal hospital of Milan.—*Imparziale di Firenze*—*L'Union Méd.*

TREATMENT OF BURNS.—Dr. Shradly, of New York, has recently treated burns by applying a paste composed of three ounces of gum acacia, one ounce of gum tragacanth, one pint of carbolized water (1 to 60), and two ounces of molasses. It is applied with a brush, renewed at intervals, and is stated to be a successful method. Four applications are usually sufficient, the granulating surfaces being treated with simple cerate or the oxide of zinc ointment, as indicated.—*London Lancet*.

NEW METHOD OF TREATMENT IN PROLAPSUS ANI.—Professor Kehrer (*New York Medical Record*; from *Deut. Med. Wochens.*, August 14) folds together a portion of the sphincter, and, after excision of its mucous covering, secures the folds by means of a firm suture. Thus a portion of the ring is eliminated, and the calibre narrowed correspondingly. In two cases subjected to this operation a speedy cure took place.

Midwifery.

THE THIRD STAGE OF ABORTION.

Dr. Theophilus Parvin, in the *Obstetric Gazette*, July, 1880, contributes a practical article on this subject, from which the following extracts are taken:—

Indeed, I have long thought that ergot was too much regarded by the profession as the universal uterine hæmostatic, and that it was frequently exhibited with no more reason and with greater injury than tincture of arnica is always used by the public for sprains and bruises. Given a bruise, almost every man, woman and child is ready to prescribe arnica. Possibly some doctors will accept the prescription, though years have elapsed since the late Dr. Garrod demonstrated that the tincture of arnica was just as valuable locally as so much alcohol, and not a bit better. Given ulceration of the mouth, and chlorate of potassium is commonly directed. Given urinary scantiness or suppression, forthwith spirits of nitre is called in requisition by the nurse, possibly by the doctor. And, finally, let there be uterine hæmorrhage, and almost so certainly as the arnica, the chlorate, or the nitre in the circumstances previously mentioned, ergot is called upon as the sovereign remedy. We are so avidious of some universal agent. It is much easier to follow a common rule than to discriminate! My belief is that ergot is a hindrance rather than a help in securing a complete deliverance in cases of abortion. As a case approaches nearer the commencement of foetal viability, and with a dilated os, it may sometimes be used advantageously. But practically such are not the cases that bring danger to the patient and anxiety to the obstetrician, for generally they work out their own salvation, and the phenomena, or complications occurring, vary but little from those observed either in premature labour or in labour at term.

I remember in my student days reading in some works upon midwifery, possibly in Dr. Huston's notes upon "Churchill," that the three great remedies for abortion were rest, time and laudanum. A professional experience of twenty-eight years has confirmed me in the value

of the advice, and at the same time has taught me that it should not be followed too explicitly and the means directed not always exclusively used. When the abortion is inevitable we may hold to these means, often remembering to abstain from rupturing the ovum, either with the fingers or an instrument. Let nature's hydros-tatic dilator be respected and retained in its integrity; then we may hope for the complete and simultaneous expulsion of the embryo and its appendages just as soon as the cervical canal has become sufficiently softened and dilated. Now, in most cases of spontaneous abortion the oval sac is found unruptured. But unfortunately for human morals, human health and life, and for the physician, many cases come under his care, not of spontaneous, but of criminal abortion, the abortion very frequently having been started by perforation of the sac, and the process of expulsion is then generally tedious, sometimes dangerous. Of course, in the first few weeks of pregnancy miscarriage is usually affected with very little more disturbance of any sort than that incident to a menstrual period, and no special treatment is required. So, too, in and from the fourth month the phenomena are usually similar to those of labour, and it is altogether exceptional when membranes or placenta are retained, if the practitioner knows how to watch and wait. But in the second and third months of pregnancy the cases of abortion of most difficulty occur. Nearly one-half the number of criminal abortions are found in the first three months, and, as before said, these are frequently induced by perforation of the oval sac. Called to such a case, or to any case of inevitable abortion, must we always interfere at once by active means for immediately emptying the uterus? I think not. It takes time for the rupture of the many uterine adhesions of the ovum, and their detachment will be assisted by tamponing the vagina, still better by tamponing the os uteri, thus causing the very effusion of blood from ruptures already made to hasten other ruptures, and giving time, too, for some softening of the cervix, and dilatation of its canal. But if the hæmorrhage has been going on for some days when the practitioner is first called, and a few hours after the application of

the tampon—if this be not followed, as it often is, by the expulsion of the ovum—especially, too, if the hæmorrhage be at all profuse, I believe in instantly emptying the uterus of its contents. But how? I shall never forget a remark once made to me by Dr. Fleetwood Churchill. When that most amiable of Christian gentlemen, that wise and admirable teacher had gone with me, just before I left Dublin, to Fannin & Co.'s, to select some obstetrical instrument, I asked him for an ovum forceps. His reply was: "Your finger is the best ovum forceps." And in the last edition of his "Midwifery," London, 1872, I read, "The use of any instrument of this kind" (he had been referring to Dewees' wire crochet, and the French forceps) "will require great care, and can only be safe so far as their application can be regulated by the finger." Yet, is this not too strong a statement?

Certainly I would hesitate before "fishing" with a bent wire in the uterine cavity, hoping there to catch the *corpus delicti* by hook or crook. Nor can I repose implicit faith in the certainty and safety of any of the curettes, one of which has been strongly recommended in cases of abortion. We may draw down the uterus so low that its cavity is readily accessible to the exploring finger, as suggested by Prof. A. R. Simpson. But the uterus enlarged and engorged by pregnancy sometimes proves itself peculiarly intolerant of all severities, and I would rather any operation upon its cavity should be effected while the organ is *in situ*. We may introduce a hand into the vaginal cavity, and then one or two fingers into the uterus. Mauriceau, by the way, well describes his use of two fingers to bring fragments of the placenta in a particular case: "I brought away three pieces of the after-birth of the bigness of a walnut, which were left behind, taking them one after the other with my two fingers, as crabs do when they grip anything with one of their forked claws." But the introduction of the hand into the vagina in any stage of pregnancy, and especially during the first months, should hardly be done without anæsthesia.

Still, my question occurs: Is there not a more excellent way than any that has been

mentioned? I believe there is. Suppose a case of incomplete abortion having hæmorrhage which by its persistence or profuseness brings danger to the patient, or commencing offensive discharge that heralds a possible septicæmia, and then interference is imperative and must be immediate. Let the patient lie on her back, upon a hard bed, her hips brought to its edge, lower limbs strongly flexed; then introduce Neugebauer's speculum, and bring the os fairly in view; now catch the anterior lip with a simple tenaculum, or better, with Nott's tenaculum forceps, and then, if there be any flexion—and it is not uncommon in cases of spontaneous abortion to observe this—use gentle traction to straighten the bent canal; at any rate fix the uterus by the instrument. Now take a pair of curved polypus forceps of suitable size, or, better still, Emmet's curette forceps, and gently introduce the closed blades into the uterine cavity, open them slightly, then close them and withdraw, when the fragments of membranes can be removed, and the instrument re-introduced. Repeat this three or four times, if necessary, until all membranes or placental fragments are extracted. Then, by means of an applicator wrapped with cotton wool, swab out twice, or oftener, the uterus with Churchill's tincture of iodine—one of the best of local uterine hæmostatics, if not one of the best of antiseptics. Finally, let the patient have ten or fifteen grains of quinia, and it will be very rarely, indeed, that her convalescence is not prompt and perfect.—*New Orleans Medical and Surgical Journal*.

TREATMENT OF PROLAPSUS ANI IN CHILDREN.

—Dr. Basevi (*Giornale Internazionale delle Scienze Mediche*, Fasc. 9) employs the following treatment in chronic cases of this affection. He first cauterizes lightly the protruding portion with nitrate of silver and then reduces it, administering afterward, with the view of checking any tendency to enteritis, an enema of tannic acid, alum, and ice-cold water. Should this treatment prove insufficient, the child is placed on a bed with the nates upward, and steadied by two assistants, one of whom fixes the upper part of the body while the other holds the knees elevated and somewhat abducted.

The prolapsus having been reduced, the nates are brought together, and two strips of diachylon plaster, each about two inches wide, are passed from one trochanter to the other in as close proximity as possible to the perinaeum. To keep them in place, a spica bandage is applied around the lower portion of the body, and a piece of gutta percha is added to protect the plaster from the contact of faecal matter. The apparatus may be left in position for two weeks.—*London Medical Record*.

CASE OF RESUSCITATION AFTER TWO HOURS AND TWENTY MINUTES.—On September 12th, 1877, I was called to a lady in labour in South Kensington, and found that her child had been born nearly an hour. Though there were two married women in the room, the child had been allowed to turn on its face, and so became asphyxiated. I found a slight flutter at the heart, which ceased in a few minutes. The child was partially wrapped in flannel and placed in front of the fire, whilst I adopted Dr. Silvester's method for suspended animation. After a little more than an hour it gave a catching kind of sob. I persevered, and at the end of two hours and twenty minutes the child breathed perfectly; and has grown to be a fine healthy child.—R. J. Maitland Coffin, F.R.C.P. Edin.—*British Medical Journal*.

THE BEST POSITION FOR WOMEN IN LABOUR.—An exhaustive paper on this subject, by Dr. Geo. J. Engelmann, of St. Louis, is reported in the proceedings of the American Gynecological Association. Among other historical facts, the doctor tells us that "Only in Siam are women kept in the recumbent position, flat on the back, the rarest of all positions during labour." The author concludes "that the fully recumbent position on the back is inimical to safe and rapid labour." He believes we should advise that in the early stages of labour the woman should be permitted to follow her own instinct with reference to position, and even in the last stages of labour she might be allowed to do the same, except perhaps with reference to some general directions, and for these he would say the semi-recumbent position in bed was the one best adapted to give her the greatest assistance.—*American Journal of Obstet.*

Translations.

ON THE EFFICACY OF THE BENZOATE OF SODA IN THE VOMITING AND DIARRHOEA OF YOUNG CHILDREN.

BY DRS. KAPUSCINSKY AND ZILEWICZ.

(Archiv. f. Kind. 8, II. 1880.)

The authors employ the Benzoate of Soda in obstinate cases of vomiting and diarrhoea (gastro-enteritis) as an anti-fermentative, and as modifying the different mucous membranes. The vomiting ceases soon after the administration of small doses of this remedy (30 to 40 grammes— $\frac{3}{4}$ to 3x of a 5 per cent. solution). The efficacy of the benzoate of soda is perhaps limited to the gastric mucous membrane alone, but the diarrhoea may be controlled by its admixture with bismuth, and a total abstinence from cows' milk.

The authors prescribe the following formula: Benzoate of Soda, gramme 5.00 (gr. lxxv.); Aquæ Fontanae, gr. 90.00 (3ij); Simple Syrup, gr. 10.00 (3ijss), one teaspoonful every 2 hours for children up to one year of age, to older ones two teaspoonfuls may be given every second hour.

The following table is reported by the authors, to show the result of their experience:

Age.	No. Treated.	Cured.	Died.
1 month	3	3	
1 to 6 months....	16	14	2
6 to 12 months ..	16	16	
1 to 1½ years	19	19	
1½ to 3 years	5	5	
3 to 5 years	4	4	

—*Lo Sperimentale*.

EXPERIMENTAL RESEARCHES UPON GLYCOSURIA CONSIDERED IN ITS RELATION TO THE NERVOUS SYSTEM.

BY MARC LAFFONT.

To sum up, says the author of this interesting work, glycosuria may be the consequence of two different processes in experimental physiology as in pathology.

It may have as a cause, a vaso-motor paralysis following section, and alteration of the nerve or sympathetic ganglia.

More frequently it is due to direct or reflex vaso-dilator actions.

The vaso-dilatation is direct when it super-

venes upon lesion of the medulla, or a hemorrhage of the floor (Liouville's case), or an excitation of the isolated peripheric end of certain nerves. It is indirect or reflex when the excitation bears on the cord, or the central end of a mixed nerve in the neuroses, cutaneous phlegmasias, or cardiac lesions. In these diverse conditions the excitation sets out from the surface of the endocardium, from the termination of the sensory nerves, from the meninges or the cord, makes its way into the cord as far as the centres of vaso-dilatation or excito functional of hepatic glycogenesis.

These centres placed in the medulla beneath the small diagonal from the floor of the fourth ventricle, are symmetrical, distinct, and separately excitable. They are the points of departure of the vascular dilators, which make their way in the cord as far as the height of the first pair of dorsal nerves, to set out from which, perhaps, as far as the third pair; they set out to be thrown into the sympathetic trunk, and from there into the splanchnic nerves.—*Lyon Méd.*

ON THE THERAPEUTIC VALUE OF THE SALICYLATE OF SODA IN THE INTERMITTENT FEVER OF CHILDREN.

BY DR. ZILEWICZ.

(Deut. Med. Wochen.)

In the course of two years Dr. Zilewicz has treated 456 cases of intermittent fever in children, with the following favourable results. In 190 cases quinine alone was given; in 59, quinine and salicylate of soda; in 207, salicylate of soda exclusively. The last remedy was given either in powder, or solution, or clyster, or hypodermically. The form in solution is the best. The dose for infants at the breast should be gr. 0.5 to 1.0 ($7\frac{1}{2}$ to 15 grains); for children from 1 to 4 years, gr. 1.0 to 2.0 (15 to 30 grains); for older children, gr. 3.00 to 4.00. Such doses were generally well borne, unless some gastric disturbance co-existed, in which case the medicine was easily rejected by vomiting. With regard to the total quantity of salicylate of soda necessary to definitively disperse the febrile attacks, Zilewicz affirms that in infants under one year, 3, 5, to 8 grammes (45,

75, 120 grains) were required; in those of from 1 to 4 years, 5 to 6 grammes; and in children from 4 to 10 years old, 8 to 10 grammes. This is the mean of his results; and it may be noted that in one boy of 5 years, 17 grammes were necessary, while in a little girl of $2\frac{1}{2}$ years, 26 grammes were required to complete the cure. *The salicylate of soda should be administered during the febrile paroxysm, if its true and prompt effect be sought.* Upon the splenic enlargement the remedy has no influence. As far as the probability of relapse is concerned, the author has not observed any difference between it and the quinine-cure. It will be observed that these observations and experiments of Dr. Zilewicz are entirely concordant with those of Bartels, of Senator, and of Monti.—*Lo Sperimentale.*

TREATMENT OF GLUTINOUS COLITIS BY EUONYMIN.

At a late meeting of the Société de Médecine a case was reported (*L'Union Médicale*) of a woman afflicted for several months with what the ancients called glutinous diarrhoea, which consists in the excretion by the stools of matters presenting the appearance of false membranes, ribbon-like, of greater or less width, length, and thickness, and liable to be taken at first sight for bits of tapeworm. This excretion, preceded and accompanied by extremely painful colics, recurred frequently in the 24 hours. It coincided (or alternated), as it usually does, with an inveterately obstinate constipation. Purgatives and laxatives, amongst them podophyllin and enemata of various kinds, had all proved ineffective. In consultation with Dr. Henri Gue-neau de Mussy, the slightly yellow, subicteric tint of the patient's skin led us to think that the constipation on which this pseudo-membranous colitis depended might be due to a morbid state of the liver, whose functions were irregularly performed. Accordingly, he advised me to have recourse to a remedy long since used in England and America, where it originated—euonymin—an alcoholic extract derived from the bark of the root of the *wahoo*, the name by which the Indians designate the *Euonymus Purpureus*.

We prescribed one of the following pills, to be taken night and morning before food:—

Euonymin..... 0.05 centigr. ($\frac{1}{4}$ gr.)
Ext. Hyoscyamus . 0.10 " ($1\frac{1}{2}$ gr.)

Make a mass, and divide into two pills.

After four or five days of this treatment the patient experienced great relief. The stools became easy, regular, normal, free from colic and false membranes. The improvement was easily maintained by resuming the pills on the first appearance of headache or constipation. Besides mitigating the irritant effects of cholagogue substances, hyoscyamus possesses laxative properties, as pointed out by Sturk, and therefore fulfils a double purpose in such cases.

TO TERMINATE THE CHLOROFORM NARCOSIS.

—A peculiar device is mentioned by Schirmer in the February number of the *Centralblatt f. Augenheilkunde*. He claims to have used it in his clinic for many years, and often succeeded in producing inspiratory movements when other means failed. He also employed it to induce rapid recovery, for instance in strabismus operations, in order to test the result. The method consists in irritating the nasal mucous membrane. It has long been known, at least to physiologists, that the fifth nerve retains its sensibility longer than any other part in narcosis, and that reflexes may be induced through this nerve when other irritations fail. Schirmer uses simply a rolled piece of paper, which he turns in the nose. In dangerous cases he dips the paper into ammonia. —*Chicago Medical Review*.

Among the many new preparations brought to the notice of the profession, none perhaps deserves more attention than Hazen Morse's Hydroleine, a preparation of cod liver oil. The efficacy of Hydroleine is, it is claimed, not confined to cases of Phthisis solely, but it has also a valuable tonic effect on the system generally. We have been using Hydroleine for some time, with the most satisfactory results, and value it very highly for its nutritive waste-preventing properties. We have been using Maltopepsyn in cases of indigestion with marked success. —*Canada Medical and Surgical Journal*. And so say we all.—ED.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by forwarding reports of the proceedings of their Associations.*

TORONTO, DECEMBER, 1880.

NOTICE.

All accounts for subscriptions to this Journal, up to December 31st, 1880, are to be paid to the undersigned.

JOSEPH HEYS,

"CANADIAN JOURNAL OF MEDICAL SCIENCE."

Toronto, Dec. 1st, 1880.

We have to announce in this issue that certain changes have taken place in the proprietorship and management of this Journal. We are happy to state that the efforts of its founders have been fully appreciated, and after five years of vigorous existence we are in a position to say that it has been eminently successful. Our numerous subscribers will doubtless be pleased to see the names of the former editors still retained, and will rejoice to be informed that we are to have in the future their active support and assistance. It will be our aim to represent fully the Medical interests of the Dominion of Canada, and more especially those of the Province of Ontario. We will endeavour to record faithfully everything of local interest, and discuss fully all medical questions which may arise from time to time. As we are anxious to become, in the proper sense of the word, the mouthpiece of the Profession of our country, we presume to ask for the active and hearty co-operation of our friends, and with this end in view request them to send any medical items of general interest, and brief reports of interesting cases in practice. We may say to any busy practitioners, who have not the time to write out their cases carefully,

that if they will send us the rough notes, we will gladly put them in shape for publication. We will also give, as far as the limits of our space will permit, the latest literature in all branches of the Profession, as found in the best Medical Magazines from all parts of the world.

Special attention will be given to our Book Reviews, which will be thoroughly critical and honest, and not mere complimentary or superficial notices.

With reference to financial matters, we have only to say that all accounts for subscriptions up to the present time, *i.e.*, to the end of this year, have been placed in the hands of Mr. Heys for collection, in order to complete the settlement of our arrangements with the former proprietors.

As the "Festive Season" will be with us before our next issue, we have great pleasure in wishing all our readers "A Merry Christmas and a Happy New Year."

ANNUAL DINNER, TORONTO SCHOOL OF MEDICINE.

The annual dinner of the Toronto School of Medicine took place at the Rossin House on Thursday evening, November 11th. Although this dinner is given by the Faculty and attending students, we understand that the entire management is left in the hands of the students, and we must heartily congratulate them upon the success which crowned their efforts. A large number of invited guests, together with the members of the Faculty and several of the graduates, sat down with the students at a table loaded with "good things," tastefully arranged, and well served. These essentials were all carried out in a way that has made the name of Mr. Mark Irish famed as one "who knows how to get up a good dinner." We were glad to see, among those present, Drs. O'Neill, Griffin and Anderson, from Hamilton, but regret to say that otherwise the graduates outside of Toronto were conspicuous by their absence. The speeches of the guests in response to the various toasts were listened to with the utmost attention; and those from the non-medical speakers, his Worship Mayor Beaty, Prof. Goldwin Smith, Mr. Justice Cameron,

Rev. Dr. Sutherland, Rev. Dr. Cavan, Rev. Dr. Castle, Mr. P. Hughes, etc., were very cordial and kindly in their tone towards our "honourable" profession.

The venerable President, Dr. Allison, a practitioner of over fifty years' standing, and Dr. Burns responded for "The Ontario Medical Council," and Dr. Canniff for "The Medical Profession." The President, Dr. Aikins and Dr. Richardson replied for "The Faculty of the Toronto School of Medicine," and were received with an amount of enthusiasm which was a pleasing indication of the good feeling which exists between the teachers and pupils of the Institution. Dr. Temple represented the sister Institution, Trinity Medical School; and from the way his remarks were received, one would think that he was as popular among the Toronto School students as he has long been known to be with his own. The genial Prof. Pernet, of University College, was present, and added much to the pleasure of the entertainment by singing a couple of songs, which were enthusiastically applauded.

Dr. Anderson, Surgeon of Hamilton General Hospital, a recent graduate, and evidently a favourite, replied for "The Graduates."

We must compliment the chairman, Mr. A. C. Jones, and the vice-chairmen, Messrs. Duncan and Cuthbertson, upon the admirable manner in which they conducted the proceedings. The speeches of Mr. Sweetnam in response to "The Graduating Class," Mr. Montague for "The Ladies," and Mr. Richardson for "The Freshmen," were excellent, and were received with the greatest enthusiasm, although at this time one o'clock had arrived. We feel sure that if any ladies had been present they would have been delighted with their spokesman, who in his remarks referred to "the true woman, the fond, sympathizing mother, and the loving sister, rather than the fashionable lady, the production of the milliner and dressmaker."

We are sorry that we have not space to refer at any length to many important subjects which were touched on by various speakers. The Mayor alluded to the fact that the Committee on Health had endeavoured to procure the appointment of a City Physician. Such an officer is almost a necessity, and we hope that

ere long such an appointment will be made. Dr. Aikins referred to the relative merits of Canadian and English students, and stated that the Canadian was above the average English student in his knowledge of the text-books, but behind him in practice. We believe this to be true; but with such able teachers as we have, and one of the best-regulated hospitals we have seen in this or the old world, we know no reason why the students of this city should be behind any others in practical knowledge; and we hope that the excellent suggestions of Mr. Sweetnam, who, while paying a just tribute to the efficiency and kindness of the Medical Superintendent of the Toronto General Hospital, thought it would be a matter of special interest and profit if a regular course of lectures could be given in clinical medicine and surgery, will receive the careful consideration they deserve.

We quite agree with Dr. Richardson, who hoped to see soon an assimilation of the matriculation examinations, so that the student will not be compelled to pass before the Council as well as the University, but that some arrangement may be made which will allow one examination to answer for both; and we also cordially endorse the sentiment expressed by the Rev. Dr. Sutherland, who hoped the time will soon come when we shall have one grand University, and that no prejudices may stand in the way of such a consummation.

We expect to refer again to some of these topics in the future.

MALPRACTICE SUITS.

At the recent sitting of the Assizes for the County of Lambton, an action for damages was entered against Dr. Scott, of the village of Forest, for malpractice.

A Mr. Brodie, druggist, of that village, on Saturday evening, July 10th, exposed himself accidentally for a short time—how long exactly was not ascertained—to the vapour of the Lig. Ammon. Fort. From fifteen to twenty minutes thereafter, Dr. Scott saw and prescribed for him. The patient was suffering from violent cough and spasm of the glottis, and there was redness of the fauces, and difficult breath-

ing and swallowing. Dr. Scott saw him on Sunday morning. On calling in the evening he was told his services were no longer required, as the family doctor had called (was not sent for), and with others had taken charge of Mr. Brodie. On Wednesday, the 14th, he died.

The alleged malpractice consisted in Dr. Scott's neglecting to use diluted acids to neutralize the ammonia, in consequence of which neglect bronchial inflammation was set up, of which Brodie, at all times a delicate man, died.

A number of medical men were called on both sides, some from great distances, when the plaintiff's counsel found that those on whom he had depended to support the charge of malpractice were not prepared to give that unqualified support to plaintiff's contention thought to be necessary to success. All were ready to admit that theoretically, if an acid could be applied at the same time as the ammonia, or immediately thereafter, good might be expected to result; but to be antidotal, the application must be made before the caustic or escharotic effects of the ammonia had been produced. After that time, and the interval of time between its application and Dr. Scott's arrival was such as they thought to allow of the full caustic effects of the ammonia, neutralizing or chemical agencies would scarcely be useful. This opinion coincided with that of Dr. Scott's witnesses, and so, at the last moment, plaintiff withdrew the record, and the suit did not go to trial.

Here is a great hardship. Dr. Scott had been put to all the costs he could in procuring counsel, bringing lay and professional witnesses to the place of trial when, all at once the plaintiff, or the plaintiff's counsel, finds he has no case, and withdraws the suit.

It is surmised that the plaintiff is not in a position to pay Dr. Scott his costs; and though his abandoning the suit may be regarded as an admission of the iniquity of the proceeding from the first, he has no redress. It is the glory of every Briton—from the highest to the lowest—that he has full access to the Courts. We ask the question, is it not time steps, legislative or other, should be taken to remedy this and kindred evils?

We hope to be able to give the particulars of the suit against Dr. Freeman in our next issue.

CLINICAL TEACHING.

A main defect in our hospital system is the absence of preliminary and systematic clinical training in teaching. The art of clinical teaching appears to be considered one which comes by inspiration, and is attained at the moment of election to a surgical or medical hospital office. Up to that time, the candidate is neither required to give any proofs of natural aptitude for teaching, nor to go through any preliminary course of training in which his natural fitness is ascertained, or acquired skill developed. There are no series of *concours*, no regulation trial "conferences," no defined and regular duties of chief of the clinic, in which the aspirant for full hospital powers and duties is required to give proof of a well-trained and well-stored memory, full of precedents and armed against pitfalls, or of educated utterance, instructed method, and acquired clearness, accuracy, and completeness of exposition. The results are well known, and are often lamentable enough. Here and there is a good, careful, well-trained, methodical clinical teacher; but the exceptions—so numerous as in the opinion of some people to constitute the rule—are seen in surgeons and physicians who go round their wards so hurriedly as to keep the students at a gallop, and to let house-surgeons and clinical clerks clearly understand that "details" are tedious, and "elaboration" a bore, and that the *coup d'œil* of the master and the *tactus eruditus* are endowments which may be received by intuition or discovered by admiring and dumb imitation, but not by careful teaching or patient study. In other cases, the hesitating utterance, or the learned or unlearned silence of the attending surgeon or physician, is equally uninformative. It is plain, indeed, that the clinical teaching of many of our hospitals is bad, because the system or want of system out of which it springs makes no adequate and regular provision for its being good.—*Brit. Med. Jour.*

The Annual Dinner of the Trinity Medical School took place at the Rossin House on the evening of the 25th of November. Owing to its occurrence so late in the month, we are obliged to hold over a report until our next.

PERSONAL.

Dr. R. W. Bruce Smith, of St. Thomas, Ontario, has removed to Sparta, County of Elgin, where he succeeds Dr. Boderington, who retires after practising his profession in that place for fifteen years.

The many friends and customers of Mr. William J. Mitchell, so well known and popular as a careful and experienced druggist, will regret to hear that he has disposed of his business on Yonge Street, and is about to remove to Winnipeg, Manitoba. We wish him all prosperity in his new home, and trust soon to hear that his experience and abilities, so well known and appreciated here, will command that success which is always due and always given to energy and push, especially in a new and rapidly-growing country.

JOURNALISTIC.—The Rocky Mountain *Medical Review*, published monthly; subscription \$5 per annum in advance. Dr. A. Wellington Adams, editor; Drs. Williams, Bancroft, Reed, and Anderson, associates; and Dr. J. A. Hart, assistant editor, is a new Medical Journal hailing from Colorado.—The *Specialist and Intelligencer*, published monthly at \$1 50 a year, is edited by Dr. Charles W. Dulles, of Philadelphia. This journal, as its name implies, is devoted to specialties, and promises to give original and selected matter on Diseases of the Eye, Ear, Throat, Skin, and Venereal diseases. Both these periodicals are clearly printed on good paper, and promise well.

There are some changes this year among the British physicians practising at foreign health-resorts. Dr. Marcet, F.R.S., who has for some years practised during the winter at Cannes, will henceforth practise exclusively in London. Dr. Charles West will reside and practise during the winter at Nice. Dr. Litton Forbes, of Spa, will, during the winter season, practise in Rome.—*British Medical Journal.*

CORRIGENDUM.—The last resolution anent "The Provincial Medical Association," on page 342 of our last issue, should have been credited to the Huron Medical Association.

Obituaries.

—Dr. Schmidt, of Montreal, died on the 3rd of November, at the age of 54, from cancer of the liver. He had been for a number of years acting as Physician to St. Patrick's Orphan Asylum, the Grey Nuns' Hospital, and the Seminary of St. Sulpice.

—Dr. John Bentley died suddenly at his residence, in Newmarket, on the 24th Nov., at the age of 61 years. He had not been actively engaged in practice for several years, but was well known and highly respected. He was a Coroner for the County, and for some time a member of the School Board, as well as the Municipal Council.

—We regret to have to announce the death of Dr. Stewart, of Woodhill, County of Peel, the result of an accident while attending to his professional duties, on the 4th of November. It is not known exactly how the accident happened, but his dead body was found near Coleraine, where he had been visiting a patient. It is supposed that he was thrown from his carriage, as the body was lying close to the vehicle, the horse being attached, and standing quietly. The deceased was a comparatively young man, having graduated in Victoria University in 1859. He had an extensive practice, and was much respected in the neighbourhood where he lived. He left a widow and one son.

—Dr. Thomas Clarkson McConkey, of Barrie, second son of Sheriff McConkey, died on Sunday, Nov. 21st, from Typhoid Pneumonia, at the early age of 30 years. He became ill Nov. 2nd, and his attending physicians, Drs. Wells and McCarthy, apprehended no serious results until Nov. 17th, when the lung complication arose. Dr. Aikens, of Toronto, was called in consultation, and saw him on the 19th. The deceased graduated in McGill University in 1872, and about the end of the same year passed before the Royal College of Surgeons, England. Immediately after this he settled in Barrie, where he practised up to the time of his illness. He was at this time Deputy Reeve of the Town, Assistant-Surgeon to the 35th Battalion, and Physician to a number of Societies.

Book Notices.

The Treatment of Post Partum Hemorrhage. By GEO. J. ENGELMANN, M.D., St. Louis.

Time of Conception and Duration of Pregnancy. By GEO. J. ENGELMANN, M.D., St. Louis.

Annual Report of the Infirmary for Hemorrhoids, Fistula, and other Diseases of the Rectum. 304 East Broadway, New York.

Light in the Public Schools and School-life in Relation to Vision. By C. J. LUNDY, M.D., Eye and Ear Infirmary, Detroit.

Some Practical Suggestions in the Treatment of Diphtheria. By R. J. NUNN, M.D., Savannah, Ga.

Transactions of the American Otological Society, 13th Annual Meeting, Newport, R. I., July, 1880: A. Williams & Co., Boston.

Surgical Treatment of Naso-Pharyngeal Catarrh. By D. H. GOODWILLIE, M.D., D.D.S., New York City (read before the American Medical Association).

On the Use of Sulphur and its Compounds in Diseases of the Skin. By L. DUNCAN BULKLEY, A.M., M.D., New York. (Reprinted from Archives of Dermatology, July, 1880.) A valuable and succinct account of the scientific use of this much used and abused remedy in affections of the skin.

Acts of the Legislature of Louisiana Establishing and Regulating Quarantine; also, Rules and Regulations of the Board of Health of the State of Louisiana, and Health Ordinances of the City of New Orleans. By JOSEPH JONES, M.D., President of the Board of Health of the State of Louisiana. New Orleans: J. S. Rivers, 74 Camp Street, 1880.

On the Management of Infantile Eczema. By L. DUNCAN BULKLEY, A.M., M.D., New York. (Reprinted from Transactions of Medical So-

ciety of the State of New York for 1880). An important essay, which should be carefully read and assimilated by all who have to do—and what general practitioner has not?—with the frequent and distressing affection of which it treats.

Hygiene of Catarrh. By J. F. RUMBOLD, M.D., St. Louis. Geo. Rumbold & Co., St. Louis, 1880.

This is a small work abounding in useful hints and valuable information, bearing on the prophylaxis and treatment of catarrh. The author points out the dangers and defectiveness of the nasal douche, and gives other and more rational methods of cleansing, &c., the nasal passages, with which his name is already associated.

A Treatise on Nasal Catarrh. By BEVERLY ROBINSON, A.M., M.D., (Paris), of New York. W. Wood & Co., New York, 1880.

This is a book of about two hundred pages on a subject which is increasingly forcing itself upon the attention of the profession. There is a brief reference to the anatomy and physiology of the part involved, and also a description of the various instruments for the diagnosis and treatment of nasal affections, and of the methods of examination.

The prophylaxis and treatment of acute and chronic coryza and post nasal catarrh are given, and various complications are discussed.

Compend of Anatomy. By JOHN B. ROBERTS, A.M., M.D. Philadelphia: C. C. Roberts & Co.

This little book is just what it pretends to be—"a concise statement of what is deemed essential to the student in following the lectures of teachers of human anatomy," and an aid to those engaged in dissection. We have not critically examined the matter it contains, and cannot, therefore, vouch for its accuracy; but remembering that Dr. Roberts has been engaged in teaching anatomy for many years, and seeing that the book professes to be based upon the works of Gray, Holden, Heath, and Flower, we deem it safe to take thus much for granted. The arrangement of the work seems to us excellent; and if only used as an aid to, and not as a substitute for, actual dissection and the larger anatomical manuals, we conceive that it is destined to render large service to those for whom it is intended.

Register of Obstetric Cases. Arranged and compiled by J. F. GOULD, M.D., Boston, Massachusetts. Published by Doane & Greenough, 116 State Street, Boston.

This is a very conveniently arranged Register, enabling the busy practitioner to keep, with a minimum of trouble and expenditure of time, an accurate and complete record of all the obstetric cases which fall into his hands. The book is stoutly bound in neat pasteboard covers, and contains twenty-five pages, each about 2 feet in width by 9 inches in length, divided in their long direction into 32 unequal columns, in which all necessary particulars may be registered by signs in accordance with the printed heading of each column. As ruled vertically, each page may carry the complete record of 24 cases. The whole is preceded by an alphabetical index, by means of which any given case can be instantly referred to through the number of the page and of the case therein set opposite the name.

Clinical Urinary Examinations. Same compiler and same publishers as above. All that has been said of the above Obstetric Record may equally be asseverated, *mutatis mutandis*, of this Urinary blank book. It is even more necessary than its fellow to the busy practitioner in utility and convenience, and will prove a veritable *sine quâ non* to all who desire to practise the art of medicine with anything like scientific precision and satisfaction. In addition to the general merits of the Obstetric Record, it presents half a dozen pages of tabulation, hints and suggestions in diagnosis and analysis, drawn from the works of DaCosta, Tyson, Hoffmann and Ultzmann, &c.

A Treatise on Diseases of the Eye. By J. Soelberg Wells, F.R.C.S., etc. Third American from the Third English Edition. By CHARLES STEDMAN BULL, A.M., M.D. New York. Henry C. Lea's Son & Co., Philadelphia, 1880.

Wells on the Eye was pronounced some years ago by an American reviewer the best work on Ophthalmology in the English language; and the present edition deserves the same meed of praise. The death of the author rendered necessary the services of an editor; and Dr. Bull has at once sustained the reputa-

tion of the book and confirmed the judgment of the publishers by his many valuable additions, which, with but few exceptions, embody the sifted and elaborated experience of the last decade of Ophthalmology, the original matter still standing as a monument to the ability and industry of the lamented author. It is an additional merit that while the work is a veritable treatise (of nearly 900 pages), it is also practically a handy-book. It is illustrated with 244 engravings on wood, and six coloured plates representing the fundus oculi, and contains selections of test-types. The mechanical execution of the book is most creditable to Messrs. Lea's Son & Co, who already occupy front rank as publishers.

On Asthma. Its Pathology and Treatment.

By J. B. BERKHART, M.D., M.R.C.P., Lond., Assistant Physician to the London Hospital for Diseases of the Chest. London: J. & A. Churchill, New Burlington Street.

After a full discussion of the prevalent theory of the nervous origin of asthma, Dr. Berkhart summarizes his views as to its nature, regarding it as "*one continuous, though protracted pathological process. Asthma, therefore, is only one link in a chain of quasi-independent affections, which commences with inflammatory changes of the pulmonary tissue, and terminates with emphysema and bronchiectasis.*"

The clinical history of asthma is given with graphic clearness as is also the diagnosis, and prognosis; treatment is considered under the respective heads of Prophylaxis, and the treatment of the disease; and under this latter heading is to be found the following quotations, which appears to include the whole therapeutic ideas of the author: "Thus, the treatment of asthma aims at arresting the progress of the existing pathological changes, and at maintaining the healthy portion of the lungs in a state of greatest efficiency. These objects are quite attainable in most cases, partly by improving the nutrition of the organism, and indirectly that of the lungs, partly by restoring the normal function of the bronchial surface."

The work is a learned disquisition on the whole subject, in which the author has been particular to consult and lay under full contribution the medical literature of the times, as

well as fully to utilize his own large experience. A medical library can hardly be said to be complete that does not contain "*Berkhart on Asthma.*"

Minor Surgery and Bandaging. By CHRISTOPHER HEATH, F.R.C.S., Surgeon to University College Hospital, etc., etc. Sixth Edition, revised and enlarged, with 115 illustrations. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

This work was originally written for the benefit of House-Surgeons and Dressers in Hospitals and Dispensaries; but with the exception of some hints, partly legal, given in the introduction to those living in British Hospitals, everything in the book will be found very interesting and profitable to the student and young practitioner in this or any country.

Minute instructions are given in all branches of Minor Surgery, such as bandaging, strapping, application of splints, appliances for arresting hæmorrhage, treatment of retention of urine from its various causes, treatment after major operations (including antiseptic); minor operations, such as aspiration, venesection, tapping a hydrocele, cupping, circumcision, removal of nasal polypi and enlarged tonsils, etc. The author gives much practical information on many subjects more fully than it is given in the ordinary text-books on Surgery, especially in bandaging and dressing wounds.

Although the writing is concise, still the subject-matter is arranged in a pleasant and readable form. There is little to criticize adversely, but we must notice two or three items to which we object. In speaking of hæmorrhage from the bladder, he says, "The injection of cold water through a catheter will generally suffice," etc. The operation of injecting the bladder under such circumstances is generally, in our opinion, calculated to do more harm than good, and such advice to the inexperienced is rather dangerous. In speaking of the treatment of retention of urine, we would have preferred to see less prominence given to silver and more to elastic catheters, as the young surgeon should be taught to use the gentlest means for relief in such cases. In fact, such is the teaching and practice of the best authorities in the present day. In de-

scribing the treatment for fracture of the thigh, we think the book would have suffered very little if the application of the perineal band had been omitted altogether.

The author concludes with an excellent chapter on case-taking, and another on the proper method of making a post-mortem examination. We hope the senior students of our Toronto Schools will look through this thoroughly useful little work, as we feel certain that if they do they will fully realize the importance of possessing it. It is more especially important to our students in this city, because they have not the opportunity of getting a thorough practical knowledge in dressing, bandaging, etc., on account of the serious defects existing in the arrangements between our teaching bodies and the General Hospital.

A Treatise on the Practice of Medicine. By ROBERTS BARTHOLOW, A.M., M.D., LL.D., Professor of Materia Medica and General Therapeutics in Jefferson Medical College, Philadelphia. D. Appleton & Co., New York, 1880.

We confess to a feeling of disappointment at the first sight of this book; for we did not believe that the ordinary contents of a work on practice, in the present day, could be compressed within the limits of 850 pages. As our acquaintance with the work grew deeper, however, our admiration and astonishment grew apace; and we began to recognize the fact that our author was not only master of the subject but also of the way of making his book, and of presenting a vast amount of well-digested matter in a compressed and convenient form. The volume is issued as a companion to the author's work on *Materia Medica and Therapeutics*; and although we agree in the author's prefatory remarks, that there seems to be no pressing need for a new work on practice at the present time, yet we are heartily glad that its publication has been undertaken and completed, for it appears to us to supply just what was lacking in our favourite text-book on Medicine—Bristowe; and the two together—for we are convinced that they should and will be regarded as complementary to each other—will justly form

the student's mainstay and the practitioner's familiar friend.

The work opens with a consideration of the Diseases of the Digestive System, and the clearness of the author's views, together with his conciseness in stating them, at once prejudice the reader in his favour. The first exception we find it needful to take is at page 112, where the use of the aspirator needle is fearlessly recommended for the relief of Meteorism; and here we feel a protest should be entered against the indiscriminate advisal or employment of this at best but temporary subterfuge, having ourselves witnessed, on more than one occasion, fecal abscess and fistula supervene. We were not aware that in the final stage of Peritonitis the typical Cheyne-Stokes' respiration occurred "in many cases," as stated by our author, and we have been unable to confirm the statement on reference to several authorities, and especially to the investigations of Luigi Luciani (*Lo Sperimentale*) and of Zimmerman (this Journal, April, 1879), on this peculiar form of rythmical dyspnœa. In the article on Pancreatitis, "pain becoming very intense" is cited as one of the prominent symptoms; whereas other authors describe it as being of a dull, aching character. We do not presume to decide between them. We observed no reference in the treatment of Ascites to the valuable suggestion of Stephen Mackenzie as to bandaging the abdomen. The occasional association, too, of Diabetes with Cancer of the Pancreas, as noted repeatedly in the last few years by French writers, appears to us worthy of mention. Too much stress, we think, should not be laid upon Congestion of the Liver from nerve influence, since the researches of Picard of Lyons go to show very few sensitive and vaso-motor fibres indeed are distributed to that organ. One serious omission we feel called upon to note especially—it being understood that articles not cited have our highest commendation—and that is, all absence of any account of Hypertrophic Cirrhosis of the Liver, a disease whose morbid entity we look upon as being now fully established. Following upon the diseases of Liver and Spleen, we find an excellent brief account of Leucocythæmia, Leucæmia, Melanæmia,

Hæmophilia, Scorbutus, Purpura, Oligæmia, Chlorosis, Pernicious Anæmia, Thrombosis and Embolism.

Diseases of the Heart are next considered most clearly and concisely. Among the signs of adherent pericardium—unreliable as they all are—we would direct attention to a fact pointed out by Duroziez, and not mentioned by our author, that with the systole the eye perceives a retraction, *whereas the finger feels an impulse*—a discrepancy between the evidence of the senses said to be characteristic. Amongst Cardiac lesions we are again disappointed in finding no account of the lesions of the right side of the heart consequent upon certain affections of the hepatic and gastrointestinal apparatus, so lucidly described by Potain, Gangolphe, Teissier and Morel. It is high time, too, we think, that a place should be found in English text-books for at least a passing notice of the numerous varieties of Pneumonia recognized by French authors, such as Traumatic (without fracture of rib), Herpetic, Nervous, Rheumatismal, Intermittent, and the latent Pneumonia of the aged; and to some of these we are pleased to say Dr. Bartholow directs attention. We are glad to find that our author is not a disciple of Balfour in the treatment of Pneumonia by chloral; but we cannot agree with him in the view that, in the inebriate, Pneumonia demands the employment of alcohol from the beginning. Much rather would we coincide with Balfour in the employment of chloral, as in the treatment of *Delirium Tremens*. On the use of alcohol in Pneumonia we would commend to our readers the excellent article by Dr. Sturges, published in the October issue of this Journal. On the vexed question of the identity of Pseudo-membranous Croup and Diphtheria, we regret to say our author separates himself from the best authorities of England and the Continent and holds to the old view of their differentiation, although we must do him the justice to add that the description he gives of the two affections scarcely justifies, in our humble judgment, the distinction. In the abortive treatment of Coryza we would have expected to find some notice of Ferrier's very effective bismuth and

morphia snuff, and from such an inveterate therapist as Bartholow, at all events a passing mention of the mastication of eucalyptus leaves. Epistaxis occupies a page, and then follow diseases of the kidney. Here we observe that, in the treatment of Eclampsia, Dr. Bartholow recommends the resort to large doses of morphia hypodermically, as suggested by Loomis of New York; but we are convinced this is dangerous practice, and we do not believe that we have heard of all the deaths which have followed in its train. As illustrating the author's advanced therapeutical notions we may cite the recommendation of tincture of cantharides (5 gtt. t. i. d.), together with an unfavourable mention of methaniline (nothing is said about fuchsine) and a reference to the Russian cockroach—*Blatta Orientalis*. In the etiology of Interstitial Nephritis we find no mention of mental worry, so strongly insisted upon by Allbutt as a factor in causation; but we do find the therapeusis of Gonorrhœa by oils and balsams credited with an influence in this direction, and the author claims to have held this view for many years. One of the most striking evidences of strenuous efforts to bring the book fully up to date is afforded by the citation of Da Costa's and Longstreth's investigation into the state of the ganglionic centres in Bright's Disease, only published in July of the present year. Another instance of the same kind is shewn in the adoption of George Budd's views as to the nature of Amyloid disease. Our author puts prolonged suppuration as the most frequent source of Amyloid Kidney, but Fehr's tables long since demonstrated its more frequent association with Tubercle. However, Dr. Bartholow may regard this as a form of suppuration. In a very excellent account of Perinephritis there is an omission to state the necessity of avoiding the confounding of this affection with Hip Disease, as pointed out a few years ago by V. P. Gibney. Diseases of the Nervous System are then entered upon; but our rapidly decreasing space admonishes us to glance but very cursorily at the remainder of this very attractive book. We note that "reeling" has, by some oversight, been omitted from the symptomatology of

Cerebellar Tumour. Friedreich's cases of hereditary Locomotor Ataxia deserve more, it seems to us, than the passing reference here accorded to them; and we find no notice of Gowers' opinion that three-fourths of such cases are syphilitic. Among the reflex disorders, too, in Posterior Sclerosis we observe no allusion to the Argyll-Robertson symptom. In the treatment we have ourselves found benefit from two remedies not included in our author's list, viz., tribasic phosphate of silver employed by Hamilton, and physostigma venenosum recommended by Ringer and Murrell. Owing doubtless to the desire to economize space, the account of Duchennes's Disease (Pseudo-Hypertrophic Muscular Paralysis) is disappointing. The account of Cerebro-Spinal Sclerosis is chiefly from Charcot, and therefore, from one point of view, good. The caution in reference to bronzing of the skin from the use of nitrate of silver is *scarcely* original with the author, as the context would seem to imply. Seguin's treatment of Migraine finds no place, we are sorry to say, in its appropriate section. Fevers and Miasmatic and Malarial diseases follow; and disorders of Nutrition, Animal Poisons and Parasites conclude the book. We have made frequent annotations here, but want of space will not permit of any further notice.

Let us hope that we have said enough to commend the book most highly to our readers, and at the same time to point out in what respects we conceive improvement to be possible.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

—At the annual meeting recently held, the following were elected officers for the ensuing year:—President, Dr. Hingston; 1st Vice-President, Dr. Wilkins; 2nd do., Dr. Osler; Council, Drs. Perrigo, Blackader, and* Shepherd; Secretary, Dr. O. C. Edwards; Treasurer, Dr. W. A. Molson; Librarian, Dr. James Bell.

Mr. Henry Montgomery, M.A., B.Sc., of the Toronto Collegiate Institute, has recently been elected a member of the Montreal Natural History Society.

Correspondence.

To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

ALUM EGGS.

SIR,—An old practitioner, and one whose instructors impressed upon him that men of our profession should, in most instances, be ready at any moment for emergencies, trusting to a ready mind and well-directed hand, I have become alarmed of late years at the numerous "impediments" with which it seems needful that we should burden ourselves, as we take our professional walks abroad. I fear the general practitioner of the future has before him a burdensome time. I was impressed with this sentiment some time ago, while reading a lecture on the subject of Abortion. The lecturer seemed to take it for granted that when we stirred out we should be always provided with sponge tents and a speculum, &c.; and he gave good directions for the use of these articles when abortions had to be dealt with; but he did not lay sufficient stress upon the very probable juncture of a summons to a case of alarming hæmorrhage when no such appliances were at hand.

It may be worth while for us to be reminded that hæmorrhage from abortion, of an apparently very dangerous description, can be safely stopped by means which may be more readily available, and that the old-fashioned tampon can, for the most part, be had recourse to with success.

I think I am stating the opinion of experienced men when I say that death from abortion is, or ought to be, one of our rarest misfortunes; yet few of us have had always at hand our speculum and our sponge tents.

In the JOURNAL of last month there is an extract from an American periodical, in which mention is made of a new description of plug called the "Alum Egg." I dare say this article may be good enough in a way. It may aid in the formation of a clot in the upper part of the vagina, and to the clot, when formed, it may afford support, and no doubt it is clean; but may we not say that, if a man knows how to plug the vagina with old linen rags or with one or two old cambric handkerchiefs, and understands the precaution of removing these in time, his patients will be as safe as if he added to his other professional baggage one or more "alum eggs?"

Yours, &c.,

Hamilton, Nov. 13. J. D. MACDONALD.

Meetings of Medical Societies.

TORONTO MEDICAL SOCIETY.

Sept. 23.—After calling the meeting to order the minutes were read. Dr. Davidson was proposed as a member of the Society.

Dr. GRAHAM related the history of a case of Leucocythæmia.

W. F., æt. twenty, farm labourer, admitted to the General Hospital, September 10, 1880, in a semi-comatose condition. Has had ague for three or four months. About a week ago began to get very stupid. Patient is very sallow, slightly jaundiced, œdema of face and extremities, and some ascites; albumen in the urine. The blood was examined on September 10th, and found to contain 1 white corpuscle to 20 red. Again on the 13th, 1 to 150. A heart murmur was discovered, but was considered a hæmic murmur. There were chills, epistaxis, diarrhœa and abdominal tenderness; the ascites disappeared. The temperature varied from 95° to 103°.

The post-mortem was made by Dr. Zimmerman, who exhibited the specimens. There was considerable fluid in the arachnoid cavity; the brain substance was pale. Heart large and flabby; the pericardium contained 4 oz. of fluid. On the tricuspid valves were some extensive vegetations of a fibrinous nature, and might have been in existence for some weeks. Spleen double its normal size, friable, weight 1lb.; mesenteric glands enlarged and indurated; elevation and congestion of Peyer's patches.

Drs. Oldright, White, Cameron, and others took part in the discussion to which this case gave rise.

Dr. ZIMMERMAN exhibited a tumour of the testicle, weighing 3lbs. 3oz., which he had removed from a subject without a history; there seemed to be an extension of the disease into the abdominal cavity.

Dr. MCPHEDRAN exhibited a piece of oyster shell one inch in its shortest diameter, which had been swallowed, and stuck low in the throat, whence it was pushed downwards into the stomach. Three days afterwards, the patient, while at stool, feeling something that he could not pass, hooked his finger round it and extracted it.

Dr. OLDRIGHT mentioned a case in which a plate of false teeth had been swallowed. Plasterer's hair and thick porridge was ordered, and in a few days the plate was passed, well enveloped in hair.

Dr. PALMER would hesitate to push onwards into the stomach a body which might have cutting edges, and would prefer extraction by the mouth with forceps.

Dr. GRAHAM reported a case of abscess of the throat which burst into the trachea, causing suffocation.

Dr. CAMERON remarked that in Angina Ludovici, an early mesial opening was advised, and if no pus was found, a director or forceps should be pushed laterally backwards between the tissues until the abscess was reached and free exit given to the pus.

Dr. MACDONALD exhibited a vesical calculus which he had extracted from a man, aged 53. He had attempted to crush, but failed. Three days after the operation there was considerable hæmorrhage, which was controlled by a neighbouring practitioner by plugging. The clots in the bladder caused great tenesmus and prostration, almost collapse, from which he was rescued by hypodermic injections of sulphuric ether.

Dr. REEVE then read a paper upon Diseases of the Naso-Pharynx, Tympanum and Mastoid Cells.

Beginning with an anatomical description of the parts, he took up naso-pharyngeal catarrh. He deprecated the neglect of the colds and sore throats of children, tracing many cases of catarrh and deafness to this cause. He then passed on to the various growths of the nasal passages, showing some specimens which he had removed, and detailing the various methods of diagnosis and treatment.

The meeting then adjourned.

Oct. 7.*—At 8.30 Dr. Covernton called the meeting to order. The minutes were read and confirmed. Dr. Davidson was elected and Dr. Sheard proposed as a member of the Society.

Dr. MACHELL reported a case of cancer of the stomach in a man thirty-four years of age, who had complained of dyspeptic symptoms for ten years. Four months ago aggravation of all the

symptoms; there was frequent and persistent vomiting, at times of a large quantity of clear watery fluid; there was constant pain, which ceased a few days before death. The pylorus was greatly narrowed, and surrounded by a hard, firm, nodular mass, and the liver had some firm yellowish masses scattered through its substance; the stomach was greatly dilated. The specimen was exhibited.

Dr. OLDRIGHT reported a case of triplets—two females and a male. Two of the placentas were united; the third was merely attached by its membranes.

Dr. COVERNTON presented a drawing of an intestinal diverticle and obstruction from an old man, who, during treatment for fracture of the thigh, was seized with colic. Abdomen became tender in the right iliac region, and swollen; the swelling afterwards extending over the whole abdomen. Vomiting set in on the third day; on the fourth day the rectum was explored manually with a negative result; on the fifth day a large injection of warm water was made through the tube of a stomach pump inserted high into the rectum; some few small pieces of fecal matter came away, and a second similar injection was ordered and given, but without benefit. The patient died on the evening of the fifth day. At the autopsy, the ileum was greatly distended; there were no signs of peritonitis. About the lower fifth of the ileum was found a piece about six inches long, constricted so as to barely admit the tip of the little finger, and overhanging this was a dilated portion of the gut, or diverticle. The intestine, after passing this constricted portion, became again distended. The remaining parts were healthy.

Drs. Cameron, Graham and Riddel took part in the discussion on this case.

Dr. WILSON, of Stouffville, related a case of dislocation of the ulna outwards, leaving the radius in place, caused by a fall from a load of wood. Reduction was effected under chloroform by seizing the ulna and drawing it backwards and inwards.

Dr. BURNS insisted upon the efficacy of applications of strong brine to the local eruption caused by *Rhus toxicodendron*, and illustrated

by drawings a ready method of recognizing the poisonous plant.

The meeting then adjourned.

Oct. 21.—The meeting was called to order at 8.20. Dr. Oldright in the chair. The minutes were read and confirmed. Dr. Sheard was elected a member of the Society.

Dr. CAMERON exhibited a placenta which had undergone calcareous degeneration.

Dr. RIDDEL exhibited some portions of a cancerous liver, with a large gall stone, which had been found lying in an indentation on the under surface of the liver. Dr. Riddel also related the history of a case of dislocation of the head of the radius, which he had reduced four weeks after the injury, with a good result; after reduction the limb was kept extended, hanging by the side of the body. Dr. Riddel, before undertaking the treatment of the case, caused the father of the boy to sign a document absolving the doctor from all action for malpractice, &c.

Drs. Carrol, Cameron and Canniff took part in the discussion which ensued.

Dr. GRAHAM then related a case of cancer of the stomach, in which the patient had vomited some cranberries eight months after ingestion, exhibiting some of the berries.

Dr. CAMERON detailed a case of irritant poisoning caused by a lobster supper, and asked the proper treatment to be pursued; he had given sulphurous acid.

Dr. OLDRIGHT reported the sudden death of a woman who for two or three days had been suffering from severe abdominal pains. The post-mortem gave no clue to the cause of death.

Dr. GRAHAM then read the histories of two cases of sclerosis. The first, A. H., sixty-seven years of age, with a good family history; disease began nine years ago with weakness in the legs; then pains in the legs and arms; had paralysis after an attack of nervous fever; this disappeared; peculiar gait in walking; slow articulation; eyes prominent; pupils contracted; has suffered from diplopia; tendon reflex well marked.

M. P., forty-five, farmer, good family history; has had rheumatism; disease began four years ago, after erysipelas of the face, with shooting

pains and stiffness of the left hand; his voice failed, and he was troubled with vertigo; the eyes staring; has muscular contractions and rhythmical tremors, increased by voluntary exertion and excitement; speaks in a drawling manner; walks with a peculiar gait; considerable mental disturbance. He was treated with the constant current and iodide of potash.

Dr. GRAHAM then read a paper on Disseminated Sclerosis. Using Charcot's division of cerebral, spinal and cerebro-spinal sclerosis, he took up the various symptoms which accompany each division; described the more common complications, and gave a short resumé of the pathology of the disease.

The discussion of the paper was adjourned until the next meeting.

The Society then passed a resolution endorsing the recent action of the Dominion Medical Association in regard to sanitary legislation.

The meeting then adjourned.

Nov. 4.—The meeting was called to order at 8.30. Dr. Geo. Wright, Vice-President, in the chair. The minutes having been read and confirmed,

Dr. MACDONALD reported a case of poisoning by illuminating gas, which recovered under the ordinary method of treatment.

Dr. OLDRIGHT thought the administration of oxygen gas was too much neglected in these cases.

Dr. BALDWIN related the particulars of a case of this kind which he had seen in Edinburgh. A workman engaged in repairing a leak in a main had been exposed but a very few moments to the influence of the gas, when he was observed to become affected and was brought up to the open air. He walked away a short distance, sat down in a grass-plot, and fell over dead. *Post-mortem*—Nothing but the usual signs of suffocation were discovered, together with vivid injection of the lining membrane of the trachea and larger bronchi.

Dr. RIDDEL stated that he had examined the bodies of two persons drowned yesterday, and remarked the absence of *cutis anserina*.

Dr. GRAHAM reported a case of hemiplegia after apoplexy. A week ago a pemphigoid

eruption appeared upon the paralyzed hand and arm, the adjacent skin being congested. He regarded the eruption as due to an affection of the trophic nerve centres. Also a case of hemiplegia in a person aged sixty. Ten days after the attack a large bed sore appeared over one natis, forming a conical slough, with the base directed inwards, the apex outwards.

Dr. WORKMAN, after commenting upon these cases, related the history of a patient who had lately come under his notice, and who had suffered from several vertiginous attacks, attributed to insolation—the last time in June. He was a man of temperate habits. His speech was broken and jerky, and distinct amnesia was present. He was very irritable and had left hemiparesis; thirteen years ago an injury had been sustained on the right side of the head.

Dr. OLDRIGHT desired to bring to the notice of the Society the fact that different preparations of Battley's solution, of varying strengths, existed; and that a patient for whom he had ordered it had gotten about four times as much opium as he had intended. He stated that several druggists in the city had requested him to bring the matter before the Society, in order that some definite formula might be agreed upon for the *Liquor Opii sedativus*.

Dr. WORKMAN wished to know the experience of members as to the effects of the preparations of opium on the old and the very young.

After remarks by various members, it appeared that there was a general consensus of opinion as to the high susceptibility to its influence of both extremes of life.

The adjourned discussion upon Dr. Graham's paper on Disseminated Cerebro-Spinal Sclerosis was then resumed and concluded. Dr. Workman related a couple of cases, in one of which the contractions were exceedingly intermittent. The other derived much benefit from anti-syphilitic treatment. Dr. Daniel Clarke, in the course of his remarks, wished to know if any observations had been made upon the specific gravity of the brain in these cases. Dr. Graham, in reply, said that he believed it to be increased in density.

The meeting adjourned at 10.15.

HURON MEDICAL ASSOCIATION.

The regular quarterly meeting of the Huron Medical Association was held in Clinton on Tuesday, October 6th; Dr. McLean, of Goderich, president, in the chair.

The following members were present:—Drs. McLean, Sloan, Worthington, McDonald, Williams, Holmes, Graham, Taylor, Dunsmore, Campbell, Hurlburt, and Stewart.

Dr. Sloan, of Blyth, showed a lady, aged thirty-five, who has been complaining about two years of pain and a sense of fullness in the right hypochondriac region. She is under the impression that she has an abdominal tumour. There are no gastric or hepatic symptoms complained of; and with the exception of a feeling of resistance over the left lobe of the liver, nothing abnormal can be made out by a physical examination.

Drs. Stewart and Hurlburt exhibited the following cases:

(1) A young lady, in whom they opened an abscess in the left lumbar region antiseptically. There is disease of the fourth and fifth dorsal vertebrae in this case, and two years ago an abscess formed in the right lumbar region, which was opened without antiseptic precautions. It continued to discharge until the one on the opposite side was emptied and healed. When the patient first came under treatment she only weighed 98 lbs. In less than three months she gained 37 lbs. She is at present wearing a "Wyeth's, Jacket," and there is evidence of early and complete consolidation taking place, with but very little deformity.

(2) A case of exophthalmic goitre in a married female, aged thirty-four. The disease is of three years' standing. She has been taking ergot for a period of two months, and it has certainly benefited her to a great extent.

Dr. Graham, of Brussels, read notes of a case of pseudo-hypertrophic muscular paralysis which he has at present under his care. The patient is a boy aged six, with a good family and personal history. The first symptoms of difficulty in locomotion showed themselves about two months ago, and have so rapidly increased that at present he is unable to stand or walk without support. When walking, he assumes the peculiar or waddling gait said to be

characteristic of this disease. When standing, the lordosis is marked. There is complete absence of the patellar tendon reflex. As yet there is little or no increase in size of any of the muscles.

Dr. Campbell, of Seaforth, showed an idiotic boy affected with well-marked rickets. Dr. Campbell also read his report as delegate to the Canada Medical Association at Ottawa.

ELGIN MEDICAL ASSOCIATION.

A meeting of the members of the Medical Profession in the County of Elgin was held at St. Thomas on Friday, October 29th, when the following were elected officers:

President, Dr. F. B. Going, St. Thomas; Vice-President, Dr. Williams, Aylmer; Secretary, Dr. R. W. Bruce Smith, St. Thomas; Treasurer, Dr. Vanbuskirk, St. Thomas.

The members present expressed themselves favourable to the establishment of the Association on a successful basis; and the interest manifested gives evidence of this being accomplished. An adjournment was made to November 24th, for which meeting an interesting programme was arranged.

PERFORATION OF MEMBRANA TYMPANI BY ASCARIDES LUMBRICOIDES.—In the London *Lancet* for 23rd October, Mr. Lewis W. Reynolds, M.R.C.S. Eng., records a singular case of this kind occurring in a married woman 35 years of age. She had been suffering for some time from attacks of nausea and vomiting, in which round worms had been voided through the mouth and nose, accompanied by epistaxis. Santonine and compound scammony powder were prescribed, with the effect of bringing away a number *per rectum*; and after a night of intense earache a worm was discovered protruding from each ear, and both ears bleeding. The same day three others came away from the ears—two from the right and one from the left. On the following morning another worm was extruded from the meatus, and one again on the third morning, the last being four inches long and of the diameter of a goose-quill. During the same time 74 worms were discharged by the bowels.

Miscellaneous.

Dr. Edouard Seguin the elder, the distinguished writer and specialist in idiocy and allied nervous disorders, died in New York city on the 28th October, aged sixty-nine.

TREATMENT OF GOITRE.—Dr. Stevens, of Quebec, reports seven cases of goitre cured by the chloride of ammonium. Six were girls under twenty years of age, and one a married woman aged forty. The dose given was ten grains three times a day, the tumors entirely disappearing at the end of three months.

CURABILITY OF SYPHILIS.—Fournier said of syphilis, "The diathesis is a period of health interrupted by explosions of the disease." Cazenave said, "One does not recover from the syphilitic diathesis, but lives with it as with the lymphatic temperament;" and an older writer observed that syphilis strikes with its victims "a truce oftener than a peace."—*Exchange*.

REMARKABLE TOLERANCE OF OPIUM.—A case of diffuse puerperal peritonitis is reported by Dr. F. M. Welles, of New York, in which morphia was given for the first time on May 1st (one-fourth of a grain), and increased daily till on May 10th fifty-seven and a half grains were administered. The dose was then gradually decreased. Patient recovered.—*American Jour. of Obstet.*

THE FLAVOUR OF MEAT.—M. Monclar, a noted agriculturist in France, has suggested a singular plan for varying the flavour of meat. He imagines that by feeding cattle, sheep, pigs, and poultry in a particular way, or rather by flavouring their food in various ways, their flesh may be rendered much more agreeable to the palate than it often is; and there can be no doubt that he is substantially right. Thus, for instance, it is well known that poultry which have been fattened upon food containing a slight admixture of chopped truffles are far better eating than those chickens which have been stuffed or larded with truffles after they are killed. It is only natural that such should be the case, for the fla-

vour of the truffle that is consumed by the chicken permeates the whole system, which it cannot do when simply placed in the carcass. M. Monclar instances cases in which hares killed in a wormwood field, larks shot in a cabbage-field, and eggs laid by hens that had eaten diseased silk-worms, had such a nauseous taste that no one could touch them; while on the other hand some ducks and fieldfares which had fed on sprigs of juniper had a delicious flavour. He has made several experiments—among others, three upon tame rabbits, which he fed with the waste of anise-seed, with barley and bran containing a slight flavouring of juniper, and with barley and bran containing a little essence of thyme. In each case he found that the flesh of these animals was far better eating than that of rabbits fattened in the ordinary way, and yet that there was no trace of anise-seed or juniper in the taste. His conclusion is that cattle, sheep, and pigs might be fed in the same way, and that by varying the flavouring matter the beef, mutton, and pork might be made to have several different tastes.—*Sanitarian*.

[The miserable flavour of swill-fattened beef, the fishy flavour of hogs that have fed on fish, and the same flavour in the eggs of many water-fowls are demonstrations of the above. The delicacy of the canvas-back duck is due to its wild-celery food, and onions give their flavour to fowls' flesh as they do to cow's milk.—Eds.]

Births, Marriages, and Deaths.

BIRTH.

At 93 Brock Street, on the 28th ult., the wife of E. W. Spragge, Esq., M.R.C.S., of a daughter.

MARRIED.

On the 4th Nov., at the bride's home, by the Rev. Robt. Holmes, assisted by the Rev. Joseph Charlton, James I. Northrup, M.D., Hubberstone, Mich., to Mary E. Powers, of Malahide.

On the 10th Nov., at the residence of the bride's mother, 8 Parliament street, by Professor Gregg, James P. Rankin, M.D., Tavistock, to Minnie, youngest daughter of the late John McKee, Toronto.

On the 17th Nov., at Southampton, by the Rev. Peter Foy, M.A., rector of St. Paul's Church, H. H. Moorhouse, Esq., M.D., Toronto, to Sidney C., only daughter of the late Bagot Thorp, Esq., M.D., late of Haywood, Manchester, England.

DEATHS.

At Smithville, on Nov. 2nd, Evelyn, daughter of J. W. Considine, M.D., Port Dalhousie.

In St. Thomas, on Nov. 8th, Henry, father of Dr. VanBuskirk, aged 84.

On Tuesday, the 23rd Nov., at the residence of her son-in-law, Dr. Greenlees, 250 Victoria street, Mrs. Louisa Sully Grace, eldest daughter of the late Richard Sully, Esq., of London, Ont., in the 52nd year of her age.



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